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A MODEL FOR SUMMER
PROGRAMS FOR CHILDREN
WITH LEARNING DISABILITIES

by

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Abstract

The large number of learning disabled children and dearth of appropriate professional resources in most communities have resulted in attempts, by concerned individuals and organizations, to develop community-centred summer programs for these children. This study presents a model for summer programs for learning disabled children that is based on the results of a pilot project designed for such a population.

The pilot project provided a two month program for 120 children between the ages of 5 and 11 years. Each child was assigned to one of six groups designed to develop basic skills in the areas of audition, vision, lanaguage, attention, gross motor coordination or fine motor coordination. Group assignment was determined by the nature of each child's major disability. The project was designed and supervised by a professional consultant and two graduate students in the field of learning disabilities. Fifteen teenagers were trained to work directly with the children.

The model is designed to accommodate 120 learning disabled children between the ages of 5 years 0 months and 8 years 6 months. One aim of the model summer program is to develop deficit basic skills by providing the children with success oriented, sequentially ordered experiences in all areas of sports, gymnastics, music, drama, and arts and crafts. A second aim is to include the children's parents as participant program observers in order to increase their understanding of learning disabilities and to acquaint them with methods of assisting their children at home. This suggested program makes use of the same type of personnel as did the pilot project.

The model is designed to meet community-felt needs using the resources available in reality.

advisor

TABLE OF CONTENTS

CHAPTER	PAGE
I. The Growth of Summer Programs for Learning Disabled Children	1
II. An Outline of a Model for Summer Programs for Learning Disabled Children	3
III. A Description of the Pilot Project	8
Purpose	8
Program organization	8
Program design	9
Assessment and group placement	9
Hiring and training of teenage staff members	10
Parent communication	10
IV. Results of the Pilot Project	12
The definition of learning disabilities	12
Types of difficulties experienced by children	12
Improvement	14
Absenteeism	18
Assessment procedures and group placement	20
Teenage staff members	23
Travel	29
Parental Communication	30

CHAPTER	PAGE
V. Elaboration of the Model for Summer Programs for Learning Disabled Children	31
Population to be served	32
Program design	32
Selection and assessment of children	38
Program organization	42
Staff requirements and training	42
Parental communication and participation	45
Evaluation	50
References	51
Appendices	52
A. Proposed Pilot Project	53
B. Selection of Children	58
C. Program Design	62
D. Initial Assessment and Treatment Group Assignment	71
E. Selection and Training of Teenage Staff Members	78
F. Parental Involvement	83

LIST OF TABLES

TABLE		PAGE
1.	Improvement by treatment groups	17
2.	Absences of more than 5 days for children with no recorded change in performance	19
3.	Frequencies of changes suggested by teenagers	28

LIST OF FIGURES

FIGURE		PAGE
1.	Program and location schedule for the pilot project	8
2.	Proposed weekly schedule for the Surrey summer program	54
3.	Bulletin circulated throughout elementary schools advertising program	58

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CHAPTER I

The Growth of Summer Programs for Learning Disabled Children

The authors of the CELDIC Report (1970) state that 12% of the population up to 19 years of age requires treatment because of emotional and learning disorders. They further comment that the available resources are inadequate in meeting the needs of this large number of children. Parent groups and community organizations have not only recognized this fact but are now attempting to find ways to servicing this population.

Groups such as The Association for Children with Learning Disabilities, YM-YWCA, schools, and concerned parents are attempting to use the months of July and August to assist these children. In many communities this is taking the form of summer programs for children with learning disabilities. The different programs developed vary in philosophy and content as well as in the amount of professional assistance sought by the organizers. There are gym programs designed to develop motor coordination, remedial reading and arithmetic classes to teach academic skills, camp programs to assist with the development of social skills, and programs designed to remedy all learning disabilities. Some of these are organized and executed by concerned individuals within the community, others make use of only highly trained professionals, while the majority use some combination of both.

In addition to the needs of learning disabled children, many of these programs are attempting to help the parents cope with their children's problems. Time and resources are being allocated for educating parents about the nature of learning disabilities, and for acquainting them with

materials and methods they can use at home to help their children.

These facts indicate that there are needs felt by some people within various communities that are not being met by the resources presently available. Further, there appears to be some indication that summer programs designed for particular groups of children are viewed by these individuals as a means of meeting these needs.

In view of these needs, this author undertook to assist with the development, implementation, and evaluation of a pilot project in order to gather data for the design of a summer program for learning disabled children. The purpose of the model is to accommodate the community-felt needs as realistically as possible in relation to existing resources. The following discussion presents a brief outline of the model, describes the pilot project and its findings, and develops the model more fully in relation to the project results.

CHAPTER II

An Outline of

A Model for Summer Programs for

Learning Disabled Children

For purposes of this model, a learning disability will be defined as some form of developmental discrepancy. Behaviourally, this results in a child who needs direct training through a sequential developmental program in order to acquire skills that most children learn incidentally or through standard teaching techniques.

A beneficial program for these children will be defined as one which provides success-oriented experiences of a sequential nature, designed to develop certain broad categories of abilities. If a child has not learned incidental skills that are usually acquired at a particular age, and if these skills are prerequisites to further learning, the logical outcome of an attempt to master new skills is failure. In order to prevent the development of a negative self concept associated with the accumulation of such failure experiences, it is important to provide a learning disabled child with an environment where he can achieve success while being taught basic skills that most children learn incidentally.

As well as describing a beneficial program for learning disabled children, this model has been designed to provide opportunities for the parents of these children to become more acquainted with their children's behaviour and the ways in which they (the parents) can be of assistance to them (the children).

Children eligible for the suggested program would be boys and girls

between the ages of 5 years 0 months and 8 years 6 months who have learning disabilities. The maximum number of children who could be accommodated is 120. The parents to be included in the program would be the parents of accepted applicants.

The 120 children would be divided into four groups of 30 individuals, each group to attend the program for either four mornings or four afternoons a week during the month of July or August. The fifth day of each week would be reserved for parent conferences (one half day) and staff meetings (one half day). A central communication depot would be available to facilitate the arrangements of the former.

Two different centres, each to service a particular geographic area, could be used; one during July and the other for the month of August. Assignment of children to program centres would reflect residential proximity and accommodate, whenever possible, planned family holidays.

The program itself would consist of the regular recreation activities of sports, gymnastics, music, drama, and arts and crafts. Every child would participate in each activity daily.

As the goal of the program would be to provide success oriented experiences designed to teach basic skills, the parent(s) of each applicant would be required to complete a behavioral check list prior to his child's acceptance into the program. The check list would be designed to determine a child's abilities on tasks that are to form part of the program. This would facilitate entering the child into the various activities at levels where he could succeed. Further information concerning each child's abilities and disabilities would be requested from teachers of the applicants.

Each activity area would be adapted to provide a task level at which the child could succeed, and tasks would be sequentially ordered so as to

train basic skill deficits by providing progressively more difficult exercises.

Staff for the program would consist of one consultant, two supervisors, and 15 teenage staff member employees. The consultant would be responsible for the design of the program, selection of children, selection and training of staff, parent conferences and report writing. The supervisors would assist with program design, selection of children and staff, the training of the latter, and would be responsible for supervision of the program. The 15 teenagers would be working directly with the children. Every teenager would be assigned to two children in each of the four groups. These staff members would be responsible for carrying out all aspects of the program with these children and keeping daily anecdotal records for every child. The teenagers would also be responsible for administering check list items (identical to those on the application forms) to all children at the beginning and the end of the program.

The training of the teenagers would involve a lecture on the nature of learning disabilities, a description of the program, observation and recording techniques, the concepts of task analysis and success-oriented experiences, behavioral check list administration, and behavior management. This training program would be divided into two sessions: three consecutive days prior to commencement of the program itself, and two days after the administration of check list items and assignment of children to staff members. Training would be continued throughout the ongoing program by the supervisors and during staff conferences by the supervisors and consultant.

A general meeting prior to the inception of the program would be arranged to explain the goals of the program to the parents, inform them of the channels of communication available and request volunteer participant

observers. The volunteers would later be trained to observe and record the frequency of success-oriented and failure-oriented experiences. They would be responsible for taking such frequency counts for each of two children's performance for one half day per week for the duration of the program.

In this way it is anticipated that parents would become more aware of the importance of successful experiences for their children, and of the types of activities that can be used to help them.

At the end of each month, the behavioral check list items would again be administered to each child completing the program. Reports would be compiled on each participant and sent to the parents. If the latter had given his/her permission to the program personnel, a copy of the report would also be sent to the child's school.

After completion of the total program, a general meeting is suggested to present the overall results to the parents.

CHAPTER III

A Description of the Pilot Project

The following is a brief description of the pilot project as it was implemented in the summer of 1971. For more detailed information on the various aspects presented, appendices have been included to provide the appropriate elaboration.

PURPOSE

The 1971 pilot project was designed (a) to provide a beneficial, two month summer program for 5 to 11 year old children with learning disabilities, (b) to provide leadership training and experience for university students and teens, (c) to acquaint parents with materials and methods for helping their children at home, and (d) to develop the service as on-going in the municipality.

PROGRAM ORGANIZATION

Four groups of 30 children each were to be accommodated, one in each of four different school gymnasiums. These centres were located in different areas so as to service as broad a geographic distribution as possible. Each group of children attended 16 sessions throughout the summer, one morning and one afternoon each week for two months. The afternoon sessions consisted of two hour periods of programmed activity, while the morning was spent swimming, as well as in programmed activity. The program and location schedule is illustrated in Figure 1.

	M.	T.	Th.	F.
A.M. program swimming	G_1C_1	G_3C_3	G_2C_2	G_4C_4
P.M. program	G_2C_2	G_4C_4	G_1C_1	G_3C_3

G = Group
C = Centre

Fig. 1. Program and location schedule for the pilot project.

Wednesdays were reserved for staff conferences concerning various aspects of the project and meetings between the consultant and parents who wished to discuss their children's progress.

PROGRAM PERSONNEL

One professional consultant and two M.A. students, all in the field of learning disabilities, were employed to design and implement the program. Fifteen teenagers were hired to work directly with the children.

SELECTION of CHILDREN

Applications on behalf of learning disabled children were solicited from the municipality by means of an advertisement in the local papers and written circulars sent to the elementary schools in the area. Parents were directed to telephone the project office in order to supply the personnel with the necessary information about their child.

Four categories of data were requested.

1. Relevant statistics, e.g. name, age, sex of child; name, address and phone of parents; school and grade of child.
2. Reasons for application to the program; child's strengths and weaknesses.

3. A yes-no check list of such behaviours as: your child is clumsy and awkward, shy, etc.
4. Performance in academic areas such as reading, spelling, arithmetic, etc.

Children were selected on the basis of performance discrepancies and developmental deficits in the areas of audition, vision, gross and fine motor coordination, language, and attention. Of the 140 children who applied, 118 were admitted to the program on this basis. The remainder were rejected for one or more of the following reasons:

1. The family had planned a summer vacation for four or more of the program weeks.
2. The child was primarily emotionally disturbed.
3. The child was physically handicapped rather than learning disabled.

The presence of a physical handicap did not automatically bar a child from the program. Only in cases where this was the sole difficulty was this so. For example, children with articulation problems were not accepted unless they had accompanying learning disabilities such as general fine motor difficulties. Three children who were confined to wheelchairs were admitted as they were reported as experiencing various visual and auditory problems in addition to their physical handicaps.

PROGRAM DESIGN

Six program areas were designed, one to train skills in each of the areas of audition, vision, fine motor coordination, gross motor coordination, language, and attention. All children were to be assigned to the area in which they were experiencing the most difficulty.

ASSESSMENT and GROUP PLACEMENT

Program area assignment was based on parent information from the application forms and the children's performance on a battery of informal

tasks designed to assess behaviour in each of the six areas. The assessment battery consisted of two or three tasks in each area; a total of 16 such items were used. If a child failed tasks in more than one area, his placement was based on the frequency of these failures in the various task areas.

The assessment battery was administered to the children twice; once on their entry into the program and again on the last two days of the program. The administration was carried out by the teenage staff members. Each teenager tested all the children on one or two particular tasks.

HIRING and TRAINING of TEENAGE STAFF MEMBERS

The teenagers were hired on the basis of information supplied on a written application form and a 15 minute interview with the two supervisors. Selection was based on their anticipated ability to be responsible, independent, directive with the children, and receptive of direction from the consultant and supervisors. They attended a three day training session where they were taught the nature of learning disabilities, the types of activities useful in training deficit skills, techniques of behaviour management and observation and recording of behaviour, and task battery administration. They were then assigned to a particular activity group for the duration of the program. Within their respective groups, each was then assigned to two children from each of the four geographic centres.

The teenagers were to be responsible for carrying out program activities with their particular children under the direction of the supervisors, and keeping daily anecdotal records on each child with whom they worked.

PARENT COMMUNICATION

These daily reports, together with the behavioural data gleaned from the administration of the task battery, were compiled into reports on the various children and were available to parents upon request.

At a meeting of the Association for Children with Learning Disabilities in February, the results of the project were presented.

CHAPTER IV

Results of the Pilot Project

THE DEFINITION of LEARNING DISABILITIES

The concept of learning disabilities has been approached in a multitude of ways. The areas of Perceptual Motor Development (Kephart, 1971; Barsch, 1967; Getman, 1965), Visual Perception (Frostig, 1964), Language (Bateman, 1965; Johnson & Myklebust, 1967), and Psycholinguistics (Kirk & McCarthy, 1961) are among those that have been emphasized. The professionals involved in the Second Task Force on Learning Disabilities could not agree on any one definition; they only agreed in their disagreement (Bateman, 1968).

This confusion was partially reflected in the original plans for the pilot project. Although the proposal specified that learning disabled children were those with difficulties in motor coordination, visual perception, and auditory discrimination, arrangements had been made to provide a motor training program for all children.

Discussion with the program organizer and program designers resulted in the use of the term "learning problems" rather than "learning disabilities" in advertising for participants. The former was felt to be more flexible, hence permitting the program to be designed according to the needs of the community. The term "learning disabilities" on the other hand, would have carried with it the implication that a predesigned program was soliciting a particular type of child with a specific set of characteristics.

TYPES of DIFFICULTIES EXPERIENCED by CHILDREN

The application forms submitted and the pre-program task data indicated that children rarely had difficulty in only one area, but were experiencing

a multiplicity of problems. Of the population who applied to the program, major areas of difficulty and the frequency with which they were mentioned were:

Academic:

Reading	44
Arithmetic	17
Spelling	7
Writing or printing	6

Non-Academic:

Coordination (general)	26
Short attention span (includes hyperactivity)	21
Speech	19
Immaturity	10
"Slow"	10
Eye-hand coordination	8
Perception problems	6
F.M. coordination	5
Doesn't listen	4
Language	4
G.M. coordination	4
Visual (non specific)	3
Visual Perception	3
Comprehension	3
Social	3

Other problems mentioned once or twice were memory, space, reversing left and right, neurological problems, lack of interest, ambidextrousness, retention, learning problems, school work, hearing, "could do better if he tried", sequencing, auditory, eye-foot coordination and tactile perception. If one considers the list of non-academic difficulties, it is apparent that the skills mentioned are those acquired by most children in the course of casual experience. These skill deficits have been found to be related to academic learning problems. (McCarthy & McCarthy, 1969; Myers & Hammill, 1969).

The five to eleven year age range was specified as this was felt, by the community, to be the population most in need of assistance. The number

of learning disabled children who participated (39 eight years, seven months and over; 67 between the ages of five years and eight years six months) indicated that there were such children within this age range in the community. However, the findings of the pilot project tend to indicate that these two groups may have different needs and hence would probably benefit from different types of programs.

The major area of difficulty for the older children was more frequently academic in nature. Of this population 84.6% (33 of the 39 participants) was reported, by parents, as having difficulties in the areas of reading, arithmetic, spelling, and/or writing-(printing). Of these 33 children, 23 (or 58.9% of the older population) were described as having major difficulties in the academic area only.

On the other hand, only 26 of the 67 children (38.8%) in the younger group were experiencing some specific school problems; 16 of these (23.9%) not reporting problems of any other nature.

This fact is not surprising as the primary source of available information for the older child is generally of an academic nature, while some of the younger children would not yet be attending school.

IMPROVEMENT

Two types of improvement were operationally defined according to the behavioural observations recorded daily on each child by the staff members, objective improvement (O.I.) and subjective improvement (S.I.). The former included only objective data that illustrated an increase in skill development.

Three separate daily observations of Sally's behaviour, taken collectively, demonstrate O.I. Sally, a nine year old girl, was assigned to the fine motor group in order to develop her ability to coordinate fine muscular

movements. One of the activities pertinent to this group was a fishing game that used a magnetized pole to attract a variety of multicoloured fish. Following are the behavioural observations, recorded by the staff member with whom Sally worked, that exemplify objective improvement.

Day 1:

Fishing game: Couldn't grasp the idea that there was a magnet on the end. Used left hand. Only picked up some fish with help. Didn't get the line into the pond.

Day 3:

Fishing game: Used left hand. Picked them all up in about 20 minutes and put them back into the tray.

Day 5:

She caught all nine fish from the pond three times without any problems. Used left hand. Caught the colours of the fish I asked her to.

In this example the objective improvement is from "only picked up some fish with help" on Day 1, to "picked them all up" on Day 3.

Another example of objective improvement is Kit who was assigned to the gross motor group in order to increase his general coordination and balance. Following is a report of his attempts at using the trampoline.

Day 1:

Whenever he falls, he always has his hands there on the mat to balance him, so all of his drops or stunts are incorrect.

Day 2:

Yesterday on the trampoline, if he fell to his knees, he couldn't get back up. Today he could bounce down to his knees, then over on his seat, and then up to a standing position again.

Sue's problem was her short attention span. She was reported initially as only being able to attend to a task for a maximum time of one minute. By the end of the program she was attending to colouring tasks for five

minutes, listening to stories for five minutes, and playing with balancing toys for ten minutes. These three examples are representative of O.I.

Subjective improvement includes subjective or judgmental data reported by staff members. Statements such as "amazing progress", "he is improving", and "he is getting better at it" are examples of S.I.

S.I. alone was not used as an indication of improvement as it was the result of a staff member's judgment based on unrecorded data. However, subjective judgments in combination with objective data were considered as an indication of positive changes in behaviour as the objective information was recorded.

Table 1 illustrates the number of children assigned to each of the six treatment groups and the numbers per group whose records indicate no recorded change in behaviour, subjective improvement and objective improvement.

*S.I. & O.I. diff
in descriptive detail
& judgmental
comments*

TABLE 1
Improvement by Treatment Groups

Treatment groups	Total in group	No recorded change	S.I.	O.I.
A <i>auditory</i>	14	8	2	4
L <i>lang</i>	17	8	1	8
AT <i>attention</i>	22	9	3	10
G <i>gross motor</i>	22	5	2	15
F <i>fine motor</i>	11	5	0	6
V <i>visual</i>	20	6	2	12
Totals	106	41	10	55

A = auditory
L = language
AT = attention

G = gross motor
F = fine motor
V = visual

Of the 55 students for whom improvement was reported, only 12 children were 8 years, 7 months or older (21.8% of those who improved), while 22 of the 41 students for whom no change was noted (53.7%) were 8 years, 7 months or older. The teenagers' reports gave some indications of possible explanations for no changes in behaviour. Six of the older children in the program had demonstrated skill in all areas where they had been placed. As no noticeable problems were exhibited, the staff members administered informal paper and pencil tasks designed to determine whether or not the children could discriminate between similar letters (i.e. p and q, n and u, etc.) and sequences (i.e. help and hlep, etc.). All six children were unable to complete the assigned tasks.

As this occurred near the end of the program, it was not possible to follow up the findings, nor was there time to administer similar tasks to

other children. However, it seems at least possible that in some of the older children learning disabilities are more closely linked to academic areas, or that the activities used to develop deficit skills were of a level too basic for the older children.

From a management point of view, the wide age range presented some difficulty. The staff-child ratio in the pilot project being 1:2, it was not uncommon to find a teenager attempting to carry out a series of activities with two children, one aged 5 or 6, and the other 10 or 11 years old. In such instances, the interest level could hardly be appropriate for both children.

One of the staff members expressed it this way:

"He is a big show-off and I think there is too much of an age difference for him to be in our group. He's almost twelve and the others are seven."

Absenteeism. The results of the pilot project indicated that the group of children whose performance was not reported to have improved were absent more frequently than those children who were recorded as having improved.

Table 2 represents the number of children for whom there was no reported change in each treatment group and the number of those subjects who were absent for five (out of 12) or more program days.

TABLE 2

Absences of More Than 5 days for Children
with No Recorded Change in Performance

Group	No. of children no change	Number of children absent 5 or more days
A	8	8
L	8	8
AT	9	6
G	5	5
F	5	3
V	6	4
Total	41	34

Thirty-four of the 41 children (83.0%) for whom there was no noticeable change were absent for five or more program days. On the other hand, only 27 of the 65 children for whom improvement was recorded (41.5%) were absent for a similar time period.

Upon application to the program, parents were asked to specify proposed holiday dates if planned for July or August. Fifty parents stated that they had one to three weeks scheduled vacations, 24 said that they did not have any holiday plans, and 30 left the question unanswered. In the latter case it was not possible to determine if no holidays were planned, or if the dates were not yet specified. Although the exact number of children who were absent due to family holidays cannot be tabulated, it would appear that this factor contributed to absenteeism.

In the 5 year to 8 year, 6 months group, a total of 28 children were absent less than five times. Of this population, 27 children were reported as having improved during the summer. However, in the older

population, of the 12 who were absent less than five times only six were reported as having improved.

Although these results are not conclusive, they do suggest that the program activities are possibly more appropriate for the younger age group; that a more limited age range might be easier from a management point of view; and that there should be some attempt made to control absenteeism.

ASSESSMENT PROCEDURES and GROUP PLACEMENT

The intent of the task battery developed for the pilot project was:

(a) to be used in conjunction with parent information to determine the child's major area of difficulty, and (b) to add to the amount of behavioural information available on each child. The following case study is an illustration of how, in some instances, these intents were fulfilled.

Name: Ann

Birthdate: Nov. 19, 1965

Initial Assessment:

Ann was referred to the summer program by her parents because she was felt to have major difficulties of an unspecified nature. Her mother said that Ann was clumsy and awkward and had difficulties with tasks that involved manual dexterity. She exhibited such inattentive behaviours as: difficulty in following directions and concentrating; an inability to sit still; and forgetfulness. She was reported as seeking attention by "showing off" and being unable to express herself well.

Ann arrived at the initial testing session a cheerful, slightly overweight girl, wearing thick corrective lenses. Her clumsiness was illustrated by her inability to walk along an 8' board, 2" x 4" in dimension. To maintain her balance she found it necessary to hold onto a staff member throughout the execution of the task. She was unable to successfully complete tasks involving fine motor coordination and manual dexterity such as threading needles and tying a bow. During the testing session Ann was reported as attentive by the staff members, but was observed constantly moving her hands if they were uninvolved with a specific activity. Ann also had difficulties with morse code, a task involving auditory visual translation (i.e. matching a visual representation with an

auditory stimulus). She was unable to blend sequentially presented sounds to form words (e.g. c - up = cup) or to supply missing sounds to form words (e.g. -encil, -rayon = pencil, crayon).

She attended well to the tasks to which she was assigned.

As a result of this information, it was felt that although Ann was experiencing difficulties in fine motor coordination and auditory processing, her most basic difficulty was in balance and gross motor coordination skills. She was, therefore, assigned to the Gross Motor group for treatment in this primary area.

Initial observations in this group supported both parental observations and pre-test data. Ann had difficulty with every task involving gross motor coordination. She was unable to bounce from a kneeling position to a standing position on the trampoline, spring over the vaulting box, play leapfrog, or climb logs organized in step formation. Tasks involving eye-motor coordination were even less successful. She was unable to grasp the rudiments of badminton; she could not translate a visual stimulus into a motor output (playing diagrammed notes on a zither), and she refused to play catch with a ball. It was noted that here attention span was very short and she appeared to avoid these failure loaded situations by refusing to participate and/or running away. Her social interactions were often inappropriate, e.g. saying "shut up", spitting, hitting and refusing to participate in activities with her peers. She was found to have a moderate fear of water and would not submerge her head.

Treatment:

Ann was given training in activities designed to improve gross motor abilities and eye motor coordination. She was instructed and assisted on the trampoline, on the vaulting box and in the water. She practiced leapfrog, climbing over logs and games of catch, using bean bags instead of balls.

As her avoidance behaviours were felt to be caused by fear of failure, all training was initiated at a level where she could experience success (e.g. the first trampoline activity involved bouncing very gently while holding hands with a staff member for support). She was allowed to progress slowly to improve her confidence at basic levels first.

Final Assessment:

Ann showed considerable improvement in all activities requiring balance and gross motor coordination. On the trampoline she was able to bounce from a standing position to a kneeling then a seated position, finally returning to an upright

position without assistance. On the springboard and vaulting box she was able to bounce with both feet simultaneously rather than sequentially. An improvement was noted in her ability to climb steps and play leapfrog. In both instances she fell less frequently. Her avoidance behaviours were less pronounced; she participated in a game of "catch" even though she experienced difficulties with task.

Ann's social interactions became more appropriate. She apologized for rudeness and approached her peers with offers of assistance rather than physical or verbal aggression. She exhibited less fear of water and was able to totally submerge her head. Although only minor improvements were observed during the final testing session (she was now able to tie a bow, thread needles and blend sounds), her persistent failure to master the walking board and morse code could not be considered true estimates of her ability as she left her glasses at home the day of the post-testing.

Conclusions:

Considerable overall improvement was observed in Ann's ability to handle activities involving gross motor skills. She appeared more confident in herself, as illustrated by her willingness to participate in activities designed to focus on her areas of weakness. She also improved in her ability to handle tasks involving eye-motor coordination.

It is felt that Ann will still need some assistance in these areas, as well as those more complex in nature, such as fine motor coordination and visual processing.

However, the combined usefulness of these two sources of information was not evident in all cases. After group assignments had been made on the basis of parent information and task battery performance, 39 adjustments were made. The nature of these changes was determined by the observations made and reported by the teenagers and/or the supervisors. Criteria that initiated a change in placement were:

1. demonstrable mastery in all tasks of a particular activity group.
2. observable problems in an area represented by another treatment group.

Of the 39 children whose placement was changed at some point in the program, 27 were reported by their assigned staff members as having no

noticeable difficulty with program tasks in any of the six treatment groups. In these instances, assessment information and parent data were not as readily comparable in terms of meaningful data. An example is Sylvie whose major problem, as specified by her parents, was reading. Her performance on the assessment battery resulted in failure in one task in each of the areas of visual perception, gross motor coordination, fine motor coordination and auditory perception. She had no difficulty with program tasks and tentative suggestions as to the nature of her disability, if in fact there was one, cannot be put forth.

The remaining 12 children had difficulties in an area represented by another treatment group. The reports from these children's parents tended to be general in nature and therefore did not contribute sufficient specific information to aid in group placement. One example is a child who was originally placed in the visual group on the basis of task performance and non-specific parent information. When difficulty was noted in the area of fine motor skills, such as cutting with scissors and using a pencil, several gross motor activities were tried. It was observed that she did not have the most basic abilities in this area. The child was then moved from the visual group to the gross motor group.

The fact that there were 39 children whose initial placement needed adjustment suggests that assessment procedures could be improved.

TEENAGE STAFF MEMBERS

Although the expectations of the staff members were indeed demanding, it was found that high school students were able to meet them. They were able to grasp the theoretical concepts presented and translate these into appropriate teaching and management techniques. They were generally found to be highly responsible and flexible, demonstrating abilities to

work independently and successfully with the children.

At the end of the summer the supervisors evaluated the teenagers individually and as a group. Each individual was rated on his (a) ability to work independently, (b) willingness to take direction, (c) sense of responsibility, and (d) attitude. The ratings were based on anecdotal recordings of staff performance. Observations and comments were available for every staff member on each criterion.

Of the 15 staff members, only two were considered below average on any of the aforementioned criteria, and only one was found to be unacceptable in most things he did. Of the remaining 13 staff members, 7 were considered to be above average on every criteria, while 6 were average or above.

As a group, most of the staff members did not know each other prior to the inception of the program. During the two months that they worked together, they developed into a cooperative, functioning unit, controlling each other when appropriate. One example of the use of peer pressure occurred when the location for the Wednesday staff conferences was announced. One teenager complained, "Oh, do we have to go all the way down there? Can't we have it at my house?" to which another staff member immediately replied "Everybody has to make the same trip, S _____." This internal control was also noted during treatment sessions. The teenagers themselves verbally reprimanded their peers if they wasted time, left equipment lying around, or played when they should have been working.

Seven of the 15 teenagers were absent for some period of time due to illness. Those staff members who had perfect attendance never questioned the appropriateness of full pay for their colleagues; in fact, two expressed concern that one or other of the staff members might have their pay reduced.

These two teenagers, who had not been absent, felt this would be inappropriate.

One staff member was an unattractive girl who did not possess any social skills. Although the group never fully accepted her, they did not exclude her either. On two occasions near the end of the summer, the group was observed giving her instruction and encouragement on the trampoline. A further incident that demonstrated the teenagers' willingness to accept each others strengths and weaknesses took place in the swimming pool. One of the boys was a non-swimmer and, initially, very self-conscious about his lack of skill. By August, several of the other staff members were trying to teach him how to swim and a good time seemed to have been had by all.

This group of adolescents was generally conspicuous for its lack of small "cliques". They seemed to accept each other as they were and, while there were two staff members who never became an integral part of the group, these individuals were certainly not excluded in any way.

During the final week of the program, each staff member was asked to submit a written evaluation of the program and his experiences. This evaluation was to include the following topics:

Learning Experience

- what you have learned?
- what you would like to have learned but didn't?

Training Course

- what aspects were most useful?
- what was not useful?
- recommendations

Program

- what have you learned about your area?
- on some future occasion would you choose the area in which you worked or another one?
- can you think of new activities pertinent to your area? Give examples.

Recommendations (with respect to)

- training and supervision
- testing, program, equipment
- organization
- finance

In future, would you choose this type of a job in preference to another sort? Why? Why Not?

The evaluations submitted demonstrated considerable insight and sophistication on the part of these youngsters. Following are some direct quotes concerning what some of these teenagers felt they had learned from their experience.

"In this job I have learned that not all children do things to be bad. That if a child is always mischievous and uncontrolled there may be something wrong and he could have a learning problem. I have also learned how to work with kids at more of their level instead of looking down on them as a grown-up would."

"After taking the program this summer, I have learned that a problem of this kind does exist, and that the children involved can be helped. I have also learned that different children have different problems and that they can have more than one. I can't think of anything else I would have liked to learn."

"Before the summer, I was pretty green, not only concerning barriers to a child's mental and physical development, but also concerning children themselves (i.e. their behaviour, the way they think, what they think.). I know now that kids are basically good, that they are basically trustful, hopeful and charitable, but that there are barriers which make them seem mean, impatient, and apathetic. I have also learned that underlying all the other emotions is the basic need to be wanted and loved, and if you can convey to the child that he (she) is wanted and loved, communication and discipline will not represent a problem."

"I think the most important thing we've been shown is how to communicate with the kids."

"I learned a lot from this program such as learning how to handle children better than I could before. I also learned patience which I must say I was somewhat lacking before and I also learned that children with learning disabilities are not stupid, as a matter of fact I found them very intelligent and normal."

"I learned that children with problems are able to learn."

"This job has taught me to be more able to control children without being really strict or stern. I learned to ask children to do things by suggesting rather than force."

"I always thought that either you were intelligent, not intelligent, or retarded. How wrong an idea!"

"The two most important things I've learned are patience and responsibility."

Comments on the training program were varied. Most of the teenagers included at least one statement concerning both the positive aspects and recommendations. Examples of the former are:

"... it was fine, it told us a great deal of what we should have known."

"I think every bit of information I was given was useful."

"I thought everything we learned was useful."

"The description of children with learning problems was useful and also the method of recording properly."

"I think the training would explain well what we would face - It was also a great ego trip telling people you've been to U.B.C."

"The training program should be the same."

"We were taught enough to be able to cope with situations that arose."

"The most valuable part of the session."

Of the 15 staff members, 14 specified that the training session was useful. The one teenager who did not so state felt that too much time was spent describing individual children to their assigned staff members. He pointed out that since some assignments changed after initial testing, he considered the time wasted.

Eight of the 15 teenagers stated that the training sessions were very appropriate. They did not recommend any changes or improvements. Of

the seven who did make suggestions, five felt there should have been a heavier emphasis on specific methods and activities to be used with the children. Four expressed the desire for a longer training period; two wanted more information concerning specific children; and one felt more films would have been appropriate.

All the teenagers felt they had learned a great deal about the specific area to which they were assigned, (e.g. Visual, Auditory, etc.) both in relation to the types of problems the children experienced and the activities that helped them (the children) to develop skills. All the staff members stated that on a subsequent occasion, they would elect to work in the areas where they had acquired experience.

The recommendations for change made by the staff members and the frequency with which they were made are listed in Table 3.

TABLE 3
Frequencies of Changes Suggested by Teenagers

Change	Frequency
Transportation	
Some solution necessary	10
Salary	
An increase in wages	10
Wages adequate	2
Absenteeism of children	
Some solution necessary	1
Parents charged to decrease absenteeism	4

Suggestions concerning more pool time, more (or less) supervision, and substitute staff members to replace those absent due to illness were put forward. Each was mentioned only once.

Four of the teenagers stated that they would want the same job again; three said they would if the pay was better; and one felt she was unable to say at the time.

Of the 15 teenagers hired to work with the children, only one was considered unacceptable.

As a result of these findings, the use of teenage staff members is highly recommended for such programs. Selections procedures as outlined in Appendix E were found to be successful.

TRAVEL

Travel presented a serious problem throughout the pilot project. The distance that had to be travelled at lunch time each day was either ten miles (between C_1 and C_2 on Mondays and Thursdays), or three miles (between C_3 and C_4 on Tuesdays and Fridays). The municipality did not supply transportation in these areas. The staff members were then faced with several possible alternatives, none of which was totally satisfactory. On some occasions, certain of the staff members rode ten-speed bicycles which they had felt obliged to buy for this purpose, while at C_3 and C_4 , many ate their lunch during the three mile walk. However, there was usually a car or two to provide a form of shuttle service. With one exception, the teenagers who drove themselves or whose parents acted as chauffeurs willingly provided transportation for those who needed it. The one girl who did not fit into this pattern decided to charge everyone for "gasoline".

A further problem resulted from this geographic arrangement.

Considerable time had to be spent packing up and moving equipment from centre to centre.

PARENTAL COMMUNICATION

Informal interactions with parents throughout the program and comments from some individuals present at the presentation of the results indicate that:

1. Some parents were unaware of the nature of the program.
2. Parents wanted written reports about:
 - (a) diagnosis of their children's difficulties
 - (b) performance during the program
 - (c) recommendations that could be carried out at home and/or in the school.
3. Some parents had expectations that differed from those of the program developers.
4. Some parents expressed, after completion of the program, that they would have been willing to volunteer their time to assist with certain aspects of the program.

The nature of these findings suggests that communication with the parents needs to be improved and further, that they are eager for guidance in the management and training of their learning disabled children.

CHAPTER V

Elaboration of the Model for Summer Programs for Learning Disabled Children

The concept of learning disabilities that underlies the model is one of developmental discrepancies. Children with such discrepancies are often unable to function at a level commensurate with their peers, as they do not have the basic skills that form the foundation of more advanced learning. Their lack of basic abilities often leads to accumulated failure experiences, and sometimes to exclusion from regular recreational activities with their peers. This latter occurrence is often due to the fact that learning disabled children do not have the prerequisite abilities for the popular sports and various games of their age group.

The model for summer programs for these children, then, is designed to provide them with success-oriented learning experiences by using recreational activities. The goal of the program is to train these basic skills by adapting the level of difficulty of the various tasks and programming small sequential steps.

By involving the parents in the program as participant observers, it is anticipated that they will become more aware of the diverse behaviour of learning disabled children and the types of activities that are useful in promoting learning with their own child.

The following discussion is an elaboration of the model presented in Chapter II. The recommendations are based on the finding of the 1971 Pilot Project.

POPULATION to be SERVED

Children eligible for the program would be boys and girls between the ages of 5 years 0 months and 8 years 6 months who have learning disabilities. The maximum number of children who could be accommodated is 120. The parents to be included in the program would be the parents of the children accepted.

PROGRAM DESIGN

The nature of the program would be similar to that of a regular summer recreation program. Core activities would consist of gymnastics, sports, arts and crafts, music, and drama. Two main differences exist between the philosophies of this program and recreational one. (a) The emphasis in the former would be on helping children to develop skills in deficit areas rather than achieving mastery on tasks when entering behaviour is either average or above, and (b) the former program would be adapted to suit the needs of the children.

Children would participate in all aspects of the program daily, but each series of tasks would be adapted to provide for successful experiences while developing skill deficits. For example, a child who might be uncoordinated and clumsy would take part in drama as well as sports and gymnastics. His initial activities in the former group might involve the moving of heavy pieces of scenery to clear the stage. This task would be training gross motor development but the level of difficulty would be such that the child could still experience success. As his skill at this develops, the task could be made more difficult, for example: the movement of particular pieces of equipment to and from predesignated areas. This might necessitate some degree of planning on the part of the child so that he avoids bumping into objects or people.

Another example could be a child whose major difficulty might be in remembering a series of verbally presented directions. If, on entering the program, the child is only able to remember and follow one direction, then in each activity group his directions initially would always be presented singly. As the child's skill develops, the number of sequentially presented instructions would be increased. Again, the tasks would be adapted so as to provide the child with successful experiences while developing specific skills.

Several advantages result from this type of system where all children participate in each activity: (a) it provides a wide range of experiences for children with a multiplicity of problems, thus providing opportunities for developing skills in more than one deficit area; (b) by encouraging participation in all activities of the program, the children are exposed to a variety of experiences from which they are often barred as a result of their problems; (c) dissatisfaction among the children is less likely to occur as various pieces of equipment will not be restricted to particular children; (d) rather than extensive individualized testing by professional personnel to locate specific deficit areas, one needs to determine the child's competence in the activities that will be a part of the program.

General recreational activities are useful vehicles for developing deficit skills. The use of mime, play acting, charades, puppet shows and role playing are excellent activities that were used in the pilot project to develop listening skills, language, the ability to follow directions, to remember sequences of events and to encourage social skills of cooperation and interaction. The medium of drama also lends itself to adaptation according to the levels of skill development of the children. Following

are a few specific examples of the variety of activities that could be used in this general group:

<u>Activity</u>	<u>Skills being developed</u>
1. Read the children a story <ul style="list-style-type: none"> - length variable according to children's ability to remember a series of events presented verbally - interest level appropriate to the children. 	<ul style="list-style-type: none"> - ability to attend - listening - ability to remember verbally presented information
Have them act out the story <ul style="list-style-type: none"> (a) in mime, if the children have difficulty expressing themselves verbally (b) with words if they have some degree of language fluency. 	<ul style="list-style-type: none"> - interpretation and expression of ideas - social interaction - language - motor abilities (the degree dependent upon the nature of the "play")
2. Acting out a common, daily activity such as: <ul style="list-style-type: none"> (a) shopping (b) ordering and eating a meal in a restaurant (c) family going on a holiday 	<ul style="list-style-type: none"> - social skills - language skills - ability to sequence activities (in this instance involving long term memory and retrieval of information)
3. Have the children create their own play and produce it.	<ul style="list-style-type: none"> - this is a much more sophisticated activity and, as such, requires considerable skill in areas of - <ul style="list-style-type: none"> imagination and creativity ability to develop meaningful sequences language social abilities
4. Puppet shows, either pre-specified according to some story, or developed by the children themselves.	<ul style="list-style-type: none"> - skills developed are similar to those previously mentioned. Children who do not speak very much can often be induced to talk through puppets. They seem to provide some distance and degree of detachment for a child from his own anticipated failure.

The difficulty level of these activities and others of a similar nature could be adapted according to the children's abilities. Silent parts could be introduced for children who don't talk very much, length of production could be varied according to attention spans, and the degree of skill necessary in listening and remembering could be accommodated.

Music activities such as singing, rhythm bands, and listening also lend themselves to the development of a variety of skills. Following are some of the activities that could be useful in this area:

<u>Activity</u>	<u>Skills developed</u>
1. Group singing of familiar songs. (Can be accompanied by teaching of new verses)	<ul style="list-style-type: none"> - verbal fluency - long term and short term verbal memory - rhythm
2. Action songs	<ul style="list-style-type: none"> - same as above - motor coordination - coordination of verbal and motor output - memory for motor activities
3. Listening for and identifying high and low notes, same and different notes	<ul style="list-style-type: none"> - attending skills - listening skills - ability to discriminate sounds
4. Dancing to music (highly structure to free movement)	<ul style="list-style-type: none"> - listening skills - motor coordination - rhythm - balance

As with drama, music activities could be varied according to ability levels and interests of the children.

Gymnastic activities, although mainly focused upon motor coordination skills, could also be a vehicle for developing a child's ability to follow directions, providing opportunities for release of pent up energy, and developing initial number skills. Examples of such activities are:

<u>Activities</u>	<u>Skills developed</u>
1. Trampoline activities	- all these activities can help to improve a child's coordination
2. Somersaults	- awareness of his own body, its abilities and limitation
3. Vaulting box and springboard activities	- muscle tone and strength if the activities are preceded by directions, one is also helping a child to develop skill in listening following direction number*
4. Rolling	*a child's beginning concepts of number can be encouraged by such directions as "do two rolls", etc.

Sports form a very integral part of most children's - especially boys' - childhood. Lack of at least a minimum level of competence can be due to poor coordination and is often a source of social exclusion by peers. Thus, training in this area not only develops skills of coordination, but also could provide the child with at least some competence in areas that are an integral part of the social life of many children.

Examples of some activities that have proved useful in this area are:

<u>Activities</u>	<u>Skills developed</u>
1. "Catch" using a variety of objects such as balloons, sandbags, balls of varying sizes. Distance between players can be adapted according to abilities of the children.	- coordination - gross motor - fine motor - eye-motor - listening skills and memory skills - social skills
2. Adaptations of "floor hockey" using large balls and feet rather than hockey sticks	- same as 1. with more emphasis on gross motor coordination as players move around physically

<u>Activities</u>	<u>Skills developed</u>
3. "Hopscotch"	- motor skills such as hopping, balancing, eye-motor coordination
4. "Target practice"	- eye-motor coordination
- using sand bags and targets with holes	
- distance from target can be altered according to ability levels	
	1. Listening and memory skills can also be developed with all tasks depending upon the extent and nature of directions and the duration of the activity.
	2. Social skills such as interaction and cooperation with peers can be developed in all tasks as well.

Under the heading of "Arts and Crafts" are included paper and pencil activities such as drawing, following the dots, and colouring, arts, crafts, and games. The activities could serve a variety of purposes and they cover a wide area of tasks. Some examples follow:

<u>Activities</u>	<u>Skills developed</u>
1. Colouring	- fine motor control
2. Cutting and pasting	- eye-motor coordination
3. Paper folding	- visual perception abilities
4. Puppet making	- attending and listening skills
5. Tic-Tac-Toe	- memory skills (can be developed by directing "colour the ball red, the the house brown, and the sun orange", etc. - if the child can identify colour)
6. Card games	- same as above and: - sequencing - numbers

This program design is similar in nature to most recreational programs designed for children without any specific difficulties. However, the approach must be a significantly different one when working with children who have a variety of problems. The emphasis must be on the development of skills and providing a child with success-oriented experiences.

Operationally this means that the level of difficulty of a task must be adjusted so that the particular child is able to accomplish whatever task he sets out to complete. In order to provide successful experiences from the very beginning, one must have information about each child's abilities in all areas of activities the program intends to cover. *

SELECTION and ASSESSMENT of CHILDREN

Applications for admission to the program must provide sufficient information to permit selection of learning disabled children and to facilitate initial task level placement. Two important sources of such information are parents and teachers. Each knows the particular child, but in different situations. Therefore, it is recommended that data be collected from both sources. However, one must consider the rights of the parents with respect to soliciting information about their children from other sources, and request permission from them before contacting the school in question.

An application form completed by the parents, then, is the first step. The following categories of information should be sought:

1. Statistical data
 - name, address, age, sex of child
 - name, address, telephone number where parents can be reached
 - school, grade, and teacher of the child.

2. Open-ended questions such as:
 Why do you want your child to attend the program?
 What do you want your child to learn from the program?
 What are your child's strengths and weaknesses?
3. A checklist requiring parents to specify behaviourally their children's abilities to perform tasks that will be a part of the program, e.g. my child can catch a baseball:

_____	_____	_____	_____	_____
not at	at a distance			
all	of 0-2ft.	2-4ft.	4-6ft.	over 6ft.

My child can colour within the lines:

_____	_____	_____	_____
not at	only large	large simple	complex objects
all	objects	pictures (i.e.	with small parts
	such as	a man, or a	
	circles	horse)	
	and squares		

My child can cut with scissors:

_____	_____	_____	_____	_____
not at	can cut but	can cut along	can cut	can cut out
all	can't follow	a straight	out	complex
	a straight	line	circles	figures
	line		and	
			squares	

4. Permission to:
 request information from the school
 send a report to the school on completion of the program.

Open ended questions permit parents to specify in their own words what they consider their child's major difficulty to be. This type of probing is likely to elicit whether or not a child has difficulty with such things as listening, sports, speech, etc., and is useful in selecting children with deficits in incidentally learned skills.

As one of the goals of the program would be to provide successful experiences for the children, prior knowledge as to his abilities in

the various activities should decrease the trial and error period necessary to find the most advanced level at which he can succeed. By requiring the parents to complete the check list, a certain knowledge of their child's abilities is demanded. If this knowledge is not present, the check list must be so designed to allow the parents to acquire it by interacting with the child in a specified manner.

Therefore, two major points must be remembered when compiling a check list. First, no question should require a parent to make a value judgment concerning his child; all responses should be based on observable behavioural data. Second, the questions asked should only be pertinent to activities the parent can perform with his child if the information is not readily at hand.

Permission must be obtained from the parents before requests for information are sent to the relevant schools. Therefore, the application form should include a brief statement explaining why it is important to have academic data about their child and the usefulness of a post program report to the child's teacher. However, the parents should be free to give their permission for the soliciting of information, the divulging of information, both, or neither. The wording of the request for information could be as follows:

1. I, _____, give my permission for the program personnel to request a report from my child, _____'s, teacher concerning his abilities and disabilities. I understand this information will be considered confidential with the confines of the program.

Signed: _____ Date: _____

2. I, _____, give my permission to the program personnel to send, on completion of the program, a report concerning my child's performance during the summer, to the school that he will attend in September.

Signed: _____ Date: _____

Upon receipt of application forms, requests for information should be sent to the schools that the children are attending. Data concerning the child's abilities in academic areas such as reading, spelling, arithmetic, printing and writing, should be sought as well as information about the child's performance in physical education, sports, art, socialization, language, and attention. Examples of the child's work in both his areas of strengths and weakness should also be requested. This data would further aid in selecting children with developmental discrepancies who would benefit from the program.

In order to aid with task level placement, it is recommended that a behavioural check list, identical to the one completed by the parents, be completed by the program personnel for each child upon entry into the program. Tasks should be designed for the children to complete so that their performance can be recorded on the check list. Procedures for administering the tasks should be specific so that the technique is the same for each child. The resultant program-administered check list can then be compared with the parent-administered one. Any discrepancies in recorded performance are readily identifiable and can be further investigated. For example, a parent may have checked the item: My child can catch a baseball from a distance of 2-4ft. If the program-administered check list indicates 0-2ft. for the same item, one could readily identify this discrepancy in reporting and re-investigate the child's abilities in ball catching in order to determine the most difficult level at which

the child could still succeed.

PROGRAM ORGANIZATION

In order to accommodate 120 children, it is recommended that they be divided into four groups of 30 children, each to attend 14 half day sessions during either the month of July or the month of August. Thus, there would be one group attending morning sessions and one attending afternoon sessions in July, and similarly for two groups in August. These 14 sessions would be divided into two days during the initial part of the first week of the month to be used for assessment and 12 sessions for the next three weeks to be used for programmed activities. The fifth working day of each week would be set aside for personnel conferences concerning the children and the program (one half day) and conferences with the consultant and parents who requested such a service (one half day).

The remainder of the assessment week would be used to compile information on the children and to decide upon the type of activities relevant to their needs.

Each session with the children should be two hours in length. Part of this time, twice a week, could be used for swimming if the necessary resources are available.

Two different centres could be used for the program; one for the two groups in July and a second for the duration of the month of August. This would facilitate the accommodation of two different geographic areas.

STAFF REQUIREMENTS and TRAINING

In order to carry out this program, the following personnel are recommended:

One consultant: a practicing professional or a doctoral student in the field of Learning Disabilities.

Two Supervisors: graduate students at a Master's level in Special Education with a major in Learning Disabilities.

Fifteen Teenagers between the ages of 15 and 19 years to work directly with the children.

Volunteers and/or paid employees to perform secretarial duties.

The consultant would be responsible for the selection of children, selection and training of staff members, program development, and consulting with parents, program supervisors and program organizers, as well as compiling post-program reports on the children.

The graduate students would assist with the selection of children, selection and training of teenage staff members, program development, and be responsible for direct supervision of the program.

The teenagers would be assigned to work with specific children throughout the program. They would be responsible for keeping daily anecdotal reports on each child with whom they work.

At least one volunteer or secretary should be hired to perform such duties as typing and duplicating application forms, providing a communicative link between program personnel and parents, and typing and mailing information such as reports to appropriate individuals.

As the teenagers would be the individuals working directly with the children, the training of the former is of utmost importance. They must be taught to (a) assess children's behaviour by using the behavioural check list, (b) understand the various aspects of development that may be lagging in learning disabled children, (c) analyze the tasks that will be a part of the program in order to adapt them for the individual child's behaviour, (d) record the behaviour of the children (rather than making judgments) in order to provide daily data on the progress of the children

and to indicate to the supervisor(s) in what area the staff needs assistance,
(e) manage behaviour without resorting to punishment.

The training of the staff needs to take place prior to the inception of the program. Two training periods, one of three days in duration, and one two days in duration, are recommended. The first session (three days) needs to take place before the total program begins, while the second session should be arranged for the time between the initial assessment and the beginning of the program. The rationale for the split-session training is that only a certain amount of information can be imparted on a theoretical basis; the remainder is only meaningful in relation to the children themselves.

The following structure and content is recommended for the initial session:

Day I A.M.

1. Introduction to and discussion of the types of problems found in learning disabled children (lecture format).
2. Discussion session prompting staff members to describe probable behaviour of these children in certain specific task situations (i.e., colouring, playing "catch", etc.).
3. Familiarization with behavioural check list.

Day I P.M.

1. Practice completing check list.
2. Description of the program:
 - (a) content
 - (b) organization
 - (c) staff-child assignment arrangements.

Day II A.M.

1. The analysis of tasks and its importance in identifying
 - (a) the success level for a particular child
 - (b) the nature of his strengths and weaknesses.
2. Workshop session where staff members put into practice ideas presented in 1, using specific tasks.

Day II P.M.

1. Assignment of children to staff members and discussion of individual strengths and weaknesses with relation to program.

Day III A.M.

1. Presentation of behaviour management techniques without the use of punishment.
2. Videotape presentation of children performing tasks. Staff members are to record behavioural observations.

Day III P.M.

1. Lecture on behavioural recording procedures with emphasis on the difference between observations and judgments. (use of A.M. recordings as guides to areas needing attention.)

The two days of the second session should be spent discussing each teenager's assigned children, their specific difficulties, and the ways in which they should be introduced into the program activities.

In-service training should be continued by means of staff conferences once a week. This allows for discussion and resolution of difficulties arising throughout the course of the program.

PARENTAL COMMUNICATION and PARTICIPATION

It is important that parents understand the goals of the program, and have some means of communicating with program personnel if they have a need to do so. In addition, such a program provides an excellent

vehicle for acquainting them with ways in which they can be of assistance to their children. The following procedures are recommended in order to achieve these objectives:

1. A general meeting prior to commencement of the program for all parents of accepted children.
2. Involvement of parents in the initial behavioural assessment of their children.
3. Involvement of parents in the program as participant observers.
4. A specific channel of communication for two-way contact between parents and program consultant.
5. One half day per week reserved for scheduled meetings with individual parents who request this service.
6. Involvement of parents in post-program assessment of their children.
7. Written reports to all parents concerning their children's performance.
8. A final general meeting to present the results of the program.

General meeting. After selection of the children has taken place and the program has been designed, a general meeting should be arranged for all parents whose children are to be attending the summer activities. At this time, the director should present verbally an outline of the proposed project, stating in specific terms the expectations and limitations of the program. Procedures for communicating with the program representatives should be described, and the date of the final general meeting should be set. A written resume of these same points should then be presented to each parent for future reference. Time allotted for questions from the floor is essential in order to clarify any issues of concern to the parents. Participant observers should be recruited at this meeting.

Parental assessment of children's behaviour. By insisting that a behavioural check list be completed by the parents of each applicant, a minimum level of awareness is encouraged. This awareness is not only an awareness of what the child can and cannot do, but also an awareness of the types of activities that could be used to help children to develop skills.

Participant observers. Involvement of the parents in the program itself is recommended to further increase parents' knowledge of ways in which they could be of assistance to their children.

Since one of the goals of the program is to provide successful experiences for the children, parents would be trained to discriminate between a successful experience and a failure experience.

A child would be considered to have had a "success-oriented" experience when:

1. he has followed the specified directions;
2. he has completed the task;
3. the product is acceptable to the staff member;
4. the product is acceptable to the child.

"Acceptable to the staff member" involves subjective judgment on the part of the teenager working with the child. If he/she could honestly give the child positive verbal reinforcement, the product would be considered acceptable. The product would be considered to be acceptable to the child if he verbally acknowledges or accepts the praise of a staff member, or if he does not reject the praise (i.e. destroy the product verbally or in fact). An experience would be considered a failure experience if one or more of the criteria for success is not met.

A parent would then be assigned to the major group in which his (her) child has been placed but attached to a particular staff member who is not responsible for the parent's child. For the duration of one session each week, the parent would be requested to do a frequency count of success or failure experiences for each of the two children working with the particular staff member.

The purpose of this aspect of the project is to expose the parents to:

1. the activities used to help their children develop skills
2. the importance and functioning of task adaptation in order to provide successful experiences for their children.

By involving the parents as participant observers, they would be directly exposed to the program, rather than being the recipients of verbally presented information. The assignment technique would permit the parent to view his child's particular group without being involved directly with his own child. Structured observation would focus the parent's attention on one of the main goals and would avoid the awkwardness often associated with non-participant observation. The frequency counts could also be used for evaluation purposes.

Channels of communication. There should be a receiving centre for parent inquiries. A volunteer or a secretary could be responsible for answering the telephone during certain specified hours and fielding requests to the appropriate individual. A similar procedure could be carried out in order to respond to written inquiries.

This centre and the staff member assigned to it could also be used for the dissemination of information from the program to the parents.

Parent conferences. Parents who would wish to consult with the

program personnel concerning their child should be able to request conference time. As one half of Wednesday has been reserved for such occurrences, appointments could be made through the communication centre. These appointments would have to be made sufficiently early to allow for collection of data concerning the particular child.

Post program assessment. After the completion of the program, parents should again be requested to complete the behavioural check list concerning their child. This further directs parents toward observing their child's performance. Two further questions should be included in this final form:

1. What do you feel your child has learned from this program?
2. Have you any further comments?

A series of questions with forced-choice responses could also be added. Each of these questions would be based on one task item specified by the behavioural check list. The format would be as follows:

My child's skill in ball catching is:

_____ the same as it was before the program
 _____ worse
 _____ better

Parent perceived improvement could be compared with check list and program improvement.

Written reports. If written reports are to be sent to each parent, one must allow for one half day per child for the compilation of the data. Secretarial services would be essential for typing and mailing.

Final meeting. If a final meeting is to be a part of the overall program, the format should include a presentation of the general outcomes and recommendations for the future. Again, time should be scheduled

for questions from the floor.

It is further recommended that a fee be charged for each parent who has a child enrolled in the program. This would assist in defraying the cost of such an undertaking, as well as acting as a deterrent to those who wish to keep their children occupied during the summer months when there may not be any reason for the child to attend such a program.

EVALUATION

The model is not a Utopia, but a program designed to accommodate the needs specified by people within the community, using the resources available in reality.

Although the pilot project did not result in data as conclusive as one might have wished, they do lead to the previously suggested model which may now be tested. In order to assess the effectiveness of the recommended changes, innovations, and elaborations, evaluation should be of prime concern to individuals who wish to organize and implement such a summer program.

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APPENDICES

APPENDIX A

Proposed Pilot Project

In mid-May of 1971 a representative of the Surrey Association for Children with Learning Disabilities employed a professional consultant and two graduate students to design, implement, supervise and evaluate a two month summer program for children with learning disabilities. The purpose of this project was four-fold:

1. To help children 5 to 11 years old who have disabilities in body coordination, visual perception, and auditory discrimination;
2. To provide leadership training and a practical experience for university students and teens to work with these children;
3. To acquaint parents with materials and methods they can use at home to continue this help for their children;
4. To develop this as an ongoing service in Surrey following successful completion of the project.

As well as specifying these aims, the organizers had arranged for four major centres within the municipality of Surrey to accommodate the program. These schools, with adjacent swimming pool facilities, had been selected in order to serve as wide a geographic area as possible. Each centre was to provide a program for 20 to 30 children twice a week (one morning and one afternoon session) throughout the eight week summer period. Thus a possible 120 individuals could be accommodated. One day per week was to be used for the purpose of staff conferences and parent interviews.

Pool facilities had been reserved for the anticipated group on Monday, Tuesday, Thursday, and Friday mornings from noon until 12:30 p.m. The remainder of the two hour morning session and the entire two hour afternoon

session was to consist of planned programs of activities that were to take place in the school gymnasiums. Figure 2 is a diagrammatic representation of the proposed weekly schedule.

			Mon.	Tues.	Wed.	Thurs.	Fri.
a.m.	10:30-11:30 11:30-12:30	program swimming	C ₁	C ₃	staff conf.	C ₂	C ₄
p.m.	2:00-4:00	program	C ₂	C ₄	parent conf.	C ₁	C ₃

C = centre

Fig. 2. Proposed weekly schedule for the Surrey summer program

Fifteen teenagers were to be hired and trained by a consultant and two graduate students. These young staff members were to carry out the designed program with the children under the direct supervision of the university students. The latter were to be responsible to the consultant. The staff members were to move from centre to centre, working with each group of children in turn.

The organizers had arranged for the gymnastic equipment in the schools to be available for use by the program participants. The sum of one hundred dollars had been allotted for craft supplies.

The budget allowed for one hundred and fifty dollars worth of stenographic services and evaluation expenses of up to fifty dollars.

Following is a copy of the funded proposal that formulated the working document for the program:

PROPOSED PILOT PROJECT

Reason for Project: The municipality of Surrey covers an area of 139,000 square miles. Within this large area there are 17,000 school children and 10 per cent of these children have learning disabilities. Not all parents recognize this and, in most instances, it does not come to light until the child starts school.

Summer plans of the Park and Recreation Commission and other community agencies are not including any program for these children during July and August. If we are able to operate our proposed program, both the Recreation Commission and schools have indicated a willingness to make their facilities available to us.

Objective: A pilot project to be undertaken by the Surrey YMCA-YWCA and the Association for Children with Learning Disabilities; to design a beneficial two-month summer program for these children in the municipality of Surrey.

Purpose:

1. to help children 5 to 11 years old who have disabilities in body coordination, visual perception, and auditory discrimination;
2. to provide leadership training and a practical experience for university students and teens to work with these children;
3. to acquaint parents with materials and methods they can use at home to continue this help for their children;
4. to develop this as an on-going service in Surrey following the successful completion of the project.

Proposed Program Design:

Dates - June 28, 1971, to August 27, 1971.

Location - four major centres within the surrey municipality having both school and pool facilities.

Staff - one half-time fully qualified consultant and two university students, fifteen teens (15 years plus).

Training - a training course to be designed for all staff by the consultant and two university students;

- a meeting one morning a week of all staff with the consultant to discuss problems and any need for further help;
- an evaluation and report to be completed at the end of August

Program - content to be planned by those participating in leadership roles (consultant, students and teens);

- there will be four separate groups of 20 to 30 children in four locations, each meeting two hours twice a week. The teens will relate with the children on the basis of one leader to four participants;
- one afternoon a week to be used for special outings (picnic, trip to the park, etc.) to be planned by the staff.

<u>Budget:</u>	(a) Personnel Salaries:	
	1. qualified trained consultant for 2 months at \$450	\$ 900.00
	2. 2 university students at \$375 each for 2 months	1,500.00
	3. 15 teens at \$140 per month for 2 months (based on \$1.75 per hour)	4,200.00
	(b) Fringe Benefits (CPP and WC)	35.00
	(c) Evaluation Expenses (report, etc.)	<u>50.00</u>
	Sub-total	6,685.00

Other Expenses:

(a) Program:	
1. Schools (no rent) Janitor fee 8 hours a week at \$4.53 per hour for 2 months	289.92
2. Pool (no rent) Lifeguard fee 8 hours a week at \$3.25 an hour for 2 months	208.00
3. Office (initial flyer and stenographic help)	150.00
(b) Transportation from 1 centre to another, 20 miles a day at 15¢ per mile	96.00
(c) Craft supplies	<u>100.00</u>
Sub-total	843.92
TOTAL	<u>\$7,528.92</u>

APPENDIX B

Selection of Children

It was decided to recruit applicants by advertising in the local newspaper and circulating an announcement (Figure 3) throughout the elementary schools in the municipality. Application for admission to the program was to be made by the parents on behalf of their children. A telephone interview was the vehicle used for collecting the pertinent data. The advertising appeared during the first week in June; the deadline for enrollment was the end of the second week of the same month.

Criteria for selection were as follows:

1. Applicant must be between the ages of 5 years, 0 months and 11 years, 11 months.
2. Applicant must reside in the municipality of Surrey.
3. Applicant must be learning disabled.

Disorders of motor activity, perception, symbolization, attention, memory and emotionality (Myers and Hammill, 1969), the latter in combination with one or more of the first five, were considered characteristic of learning disabled children.

SURREY YMCA-YWCA and THE ASSOCIATION FOR CHILDREN WITH LEARNING DISABILITIES have received a federal government grant to run a pilot project aimed at helping children who are having problems in school and those who have pre-school tests indicating they might have such a problem upon entering school.

The course will be co-ordinated and counselled by PEGGY KOOPMAN, ED.D., ASSISTANT PROFESSOR, DEPT. OF SPECIAL EDUCATION, U.B.C. Graduate students MARILYN DUMARESQ and MARY SEATON will assist. The program will provide employment for fifteen teenagers to work with these children.

Classes will be held in four areas of Surrey: Lord Tweedsmuir Sr. Sec., Sunnyside Elementary, K.B. Woodward Elementary and Riverdale Elementary. Classes will be held twice weekly with swimming at a nearby pool included in one session a week. Parent interviews will be available on Wednesday afternoons.

The program will attempt to meet individual needs and in order to prepare this, interested parents are asked to phone Mrs. S. Carlile at 526-2485 or 581-9311 to register and provide information for a questionnaire which will be compiled for each child.

AGE RANGE is 5 to 11 years of age with preference given to pre-schoolers and those in Surrey District.

** REGISTRATION BY PHONE IS June 7th to June 10th.

Fig. 3

Bulletin circulated throughout elementary schools advertising program

A questionnaire was designed to be completed during the telephone interview. Information requested fell into several categories. The first was relevant statistical data such as name of child, age, sex, grade and school; name, address, phone and occupation of parents.

Since the program was to operate in four different areas in the municipality of Surrey, the informant was asked whether or not the parents would be able to supply transportation. Idealistically, it was hoped that all children would be assigned to groups in the vicinity of their residence, but it was anticipated that some areas would be more densely populated than others, hence necessitating travel in some instances in order to numerically balance the groups.

The interviewer was also asked if family holidays were planned and, if so, when and for how long. As it was anticipated that there would be more applications than positions available, it was felt that preference should be given to those children who could be present for the majority of the programs.

The last section of the application form dealt with the child's behaviour. Two open-ended questions were asked:

1. Why do you want your child to attend this program?
2. What do you see as his major difficulties?

The third question was in the form of a behavioural check list.

The following twelve behaviours were included:

- clumsy or awkward;
- does not play well with other children;
- shy;
- has difficulty working with his hands;
- afraid of failure;
- cannot sit still;
- forgetful;
- disobedient;
- does not express himself well;

has trouble concentrating;
shows off, needs attention;
has trouble following directions.

The interviewer was asked to respond affirmatively if the behaviour was descriptive of his/her child, negatively if it was not.

Question 4 pertained to academic performance. Subject areas included reading; arithmetic; physical education; science; spelling; printing or writing. The performance criteria were good, average, poor.

Questions 5 and 6 requested information concerning the child's strengths and interests.

A total of 135 applications for admission to the program were received. After selection of 118 children who met the aforementioned criteria, the 17 remaining were rejected for the following reasons:

Holidays planned for 4 weeks or more	6
Speech problems only	3
Predominantly emotional problems	8

It was felt that children who would be absent for more than half of the program could not benefit sufficiently from the remaining time to warrant their inclusion to the exclusion of others.

In 4 instances, speech was mentioned as the reason for referral to the program. In these cases, follow-up telephone conversations were arranged in order to determine whether or not the problem was solely one of articulation. One child was further described as "having difficulty picking up little things; used to shake when printing". Although this child was also having articulation difficulties, he was accepted on the basis of his apparent fine motor difficulties. The 3 children who were not accepted for the program appeared to have only articulation difficulties, not learning disabilities.

The 8 children, who were felt to be primarily emotionally disturbed, were also rejected as it was thought that they would not benefit greatly from a program designed to assist children with learning disabilities.

It should be pointed out, however, that no child was refused on the basis of secondary or multiple handicaps. As previously mentioned, articulation difficulties did not bar a child from the group if he also had problems in areas with which the program was designed to deal. Similarly, learning disabled children with physical disabilities were also accepted.

APPENDIX C

Program Design

After the selection of 120 children who were to attend the summer sessions, a tentative program was designed. The basis for the design was the information supplied by the parents concerning the nature of their children's difficulties.

An initial gross sort of the application forms resulted in two major distinct categories of problems and a miscellaneous group. The first category of children were the ones with assorted visual problems. Difficulties reported by the parents were vision (non-specific), visual perception, sequencing, space, reversing right and left. Another group of children were reported by their parents as having coordination problems. Mentioned by this group were coordination (non-specific), eye-hand coordination, eye-foot coordination, fine motor coordination, gross motor coordination. The miscellaneous category consisted of diverse and/or multiple difficulties such as short attention span, immaturity, social, comprehension, speech, hyperactivity, doesn't listen, hearing, language, and assorted academic difficulties.

A finer sort resulted in the formation of six treatment groups designed to develop the following skills and abilities:

<u>Treatment Group</u>	<u>Skills and Abilities to be developed</u>
Auditory	discrimination of sounds Memory: short term long term sequencing of verbally presented material listening
Language	fluency (quantitative) content (qualitative) word association sequencing of verbal output
Attention	attention span with reference to auditory, visual, and motor tasks
Gross Motor	balance muscular control gross coordination eye-motor coordination muscle strength
Fine Motor	fine motor coordination eye motor coordination finger dexterity
Visual	eye motor coordination discrimination of visual stimuli figure-ground differentiation sequencing of visual information memory: short term long term

Activities designed to develop the aforementioned skills had to satisfy one other major criteria. They had to have stronger recreational associations than academic associations. For example: the activity of copying visually presented material would use as a stimulus a pictorial object rather than an alphabetic symbol. The result of this approach was a total program that bore greater surface resemblance to a summer recreation program than to a summer school. The major difference between the former and this pilot project designed specifically for children with learning disabilities was one of intent. Most recreation programs are designed to encourage skill mastery.

They assume that the basic developmental abilities are present. Most program participants elect to attend activity sessions in areas where they already possess some degree of skill or competence. If the individual is not minimally familiar with the area, he at least possesses the inclination to learn.

The learning disabilities summer project, on the other hand, intended to develop basic skills in areas the children had previously avoided due to a history of associated failure experiences. However, as described herein, the actual activities used are similar to those found in many regular recreation programs.

AUDITORY GROUP ACTIVITIES

Tasks in this group were designed to develop skills involving the auditory process. Some exercises emphasized discrimination abilities. These consisted of identifying sounds and associating them with the appropriate visual stimulus, either two or three dimensional, and differentiating musical notes with reference to pitch and duration.

Short-term auditory memory tasks involved reproducing rhythmical sequences tapped out with a pencil or clapped. The output required varied. Sometimes it would take the form of mimicry; at other times, it needed to be translated, i.e., the rhythmical pattern stimulus would be presented as a series of claps, the output would be required in the form of ball bouncing. Games, such as "I packed my bag", demanded an item response (verbal) from the first child; the repetition of this item, and the addition of a second item by the second child, and so on, the number of items to be remembered increasing by increments of one with each successive player. Stories of varying length were presented to the children verbally. Output was required in varying forms such as repetition, selection and enumeration

of sequential events, and responses to direct questions. A similar procedure was followed using a radio to provide the auditory stimulus; verbal instructions were presented to the children, output again taking various forms. In some instances, a drawing or painting was required with specific characteristics; other directions requested sequential gross motor activities such as completion of an obstacle course according to the verbally specified pattern.

Singing was an integral part of this group's program. Children were taught words, melody, and actions to songs of varying length and complexity. Games of catch were played with the group assembled in a circle, each member having been assigned a "name" (e.g., a number, the name of a cartoon character, the name of a country, etc.). The person holding the ball had to select an individual, throw him the ball, and call out the label assigned to the receiver.

LANGUAGE GROUP ACTIVITIES

Activities for the language group were designed to increase verbal output in quantity and quality. Initial output was encouraged through verbal imitation in the guise of a shouting game. Children had to repeat verbal stimuli in as loud a voice as possible, trying to outdo each other. Singing as a group activity was also part of the program. Initially, the songs were those familiar to all individuals, and gradually, new material was introduced and taught.

Association games consisted of a stimulus word presented to the group, each member being required to express a related verbal response. A game of catch was expanded by adding a speech component. Each child receiving the ball was expected to say one word upon receipt of said object. "Statue", an activity involving initial gross motor movements and cessation of same

upon a verbal command, was extended to require various verbal responses as well as a motor one. The children took turns on the game "Simon Says". During this task, the group was expected to respond to commands such as "Simon says touch your toes, shoulders, etc.". On other occasions, they participated in a game of "army" each group member taking his turn as the drill sergeant.

A selection of activities involved more complex verbal behaviour. Stories were presented to the children who were then asked to recall the information in its entirety or in part. Assorted manual activities, such as painting and puppet construction, were followed by group or one-to-one discussions. Each child was asked to relate verbally the steps he had taken in the production of his object and then describe the completed item. Words were presented and the children were asked to develop stories around these as core words. General discussion topics varied according to the interests and past experiences of the group members. Assorted pictures were used to promote verbal interaction within the group.

A further group of activities centered around role playing. Children practiced mime, played the part of animals, pretended to be adults in a restaurant with unlimited financial resources, participated in verbal interactions using puppets, as well as generating and producing short plays, each child taking a part appropriate for his ability level.

ATTENTION GROUP ACTIVITIES

The tasks in this group were diverse in nature. They varied with reference to time (i.e., time required for completion) and stimulus modality. The major input channels were visual and auditory.

Activities requiring short attention span with emphasis on visual input were: magneto cars; tic-tac-toe; hand labyrinth, and fishing.

"Magneto cars: made use of a 6" x 8" surface with a series of roads depicted on the upper surface. Three-dimensional bridges were erected at various points along the route. Two small magnetized cars, capable of moving freely across the field, were on the road surface. The unit was encased in clear plastic. By manipulating a magnet on the under surface of the track, a child could move the cars along the roads and under the various bridges. Tic-tac-toe made use of a 3 x 3 matrix. Two players, each represented by a different symbol, played alternately, attempting to assemble three of their own symbols in a horizontal, vertical, or diagonal line. Hand labyrinth, a three-dimensional maze, required motor manipulation. A small, free moving sphere had to be moved through the maze without dropping into holes placed on the periphery. The materials for the fishing game consisted of small fishing rods with magnets instead of hooks. A paper fish pond contained magnetized fish. The object of the game was to "hook" a fish.

Several categories of activities had more flexibility with relation to the time factor. These included various card games, directed drawing and colouring, puzzle completion, paper and pencil tasks such as mazes, "follow-the-dots" and copying, collage construction, sorting activities, and dominoes. The advantage of time flexibility in an activity designed to improve the skill of attending is the degree to which it can be structured, allowing the child to experience closure and hence some degree of satisfaction regardless of his attention span.

Finding embedded figures in a large visual field, making puppets, playing "pick-up sticks" and completing a game, called "Vertigo", require a more sophisticated degree of attention. "Vertigo" consists of several balanced pairs of wires and multiple discs of various weights. The wire

pairs must be placed one upon the other in a vertical fashion. The weights are then positioned on the extended arms of this tower. Each wire spoke must be weighted without destroying the delicate balance of the structure.

Badminton and various ball games require attending to a moving target while activities such as listening to stories and following verbal directions require auditory attention.

GROSS MOTOR GROUP ACTIVITIES

Activities in this group consisted of tasks designed to improve balance as well as muscular control and coordination. Children were taught how to use a trampoline and to coordinate bouncing with various body positions (e.g., sitting, kneeling, standing). They were taught to walk, jump, and somersault on large foam rubber fields. These fields consisted of assorted sized pieces of rubber held together by wide mesh string net. The resultant mat was approximately 18 feet in length, 6 feet wide and 1 foot deep. Boards with narrow bases and broad tops were used as balancing beams. Children practiced walking with various bean bags balanced on parts of their bodies. Spring-boards and vaulting boxes were employed in the traditional gymnastic fashion. Skipping with a rope was practiced on the ground as well as on the trampoline. Tumbling and physical exercises were taught using rubber mats for safety and comfort. Leap-frog was played and hoola-hoops were utilized. Track activities, such as running and three-legged races, were a part of the program. At one school, a planned playground contained wide cement cylinders and a graduated series of logs. The former were used for crawling activities, the latter as training for climbing.

Tasks with a large eye-motor coordination component were hockey, baseball, basketball, football, badminton, croquet, bowling, various games of catch, ring-toss, and obstacle course racing.

FINE MOTOR GROUP ACTIVITIES

Nearly all the activities in the fine motor group required some degree of eye-motor coordination as well as fine motor skills. The exception to this was the manipulation of clay. Tasks involving this material could be developed to improve manual dexterity without the necessity of visual skills.

Paper and pencil activities included drawing, copying, and tracing. Skill with scissors was enhanced through exercises such as free form cutting, cutting along straight lines, and cutting out objects and designs of varying difficulty. Manipulation of brushes was taught through the activities of painting and pasting.

Weaving, braiding, paper folding, and plucking strings of a zither were also encouraged to increase fine motor coordination as were projects such as puppet construction and the creation of characters from empty egg-shell cartons. Games using moving projectiles such as balls, bean bags, rings, and tiddly-winks formed another part of this program.

Dominoes, block puzzles, and "Vertigo" (see Attention Group Activities) required organization and manipulation of many small-sized pieces while assorted card games required the same skills using various pieces simultaneously.

VISUAL GROUP ACTIVITIES

Activities designed for members of the visual group were similar and, in many cases, the same as those designed for the fine motor group. However, in this case, the emphasis was on the training of visual skills rather than fine motor coordination. Again, there was a large eye-motor coordination component in many of the tasks.

Paper and pencil activities consisted of tracing, using both stencils and two-dimensional pictures; copying; drawing step-by-step and free form;

picture completion; mazes; following sequences of dots, and coding games. Other tasks included painting, cutting, pasting, and colouring.

Matching activities such as dominoes and card games (e.g., "old-maid") were a part of the program designed to help the children discriminate similarities and differences. Painting by number, finding embedded figures, locating specific objects in a large visual field, and determining incorrect aspects of pictures were activities used to assist the children in the development of discrimination and figure ground skills.

Orgami (the art of paper-folding) was taught by having children watch the staff member execute a particular fold. The group members were then expected to produce the same fold using their own paper. End products consisted of such objects as boats, hats, frogs, etc.

Tasks involving visual tracking were also part of the program. Such activities were games of catch using bean bags or balls; badminton, and ping-pong.

Craft activities included making paper mache puppets, beading, weaving (using paper and cardboard), and the construction of paper ring chains.

APPENDIX D

Initial Assessment and Treatment Group Assignment

Having determined the six major areas of disabilities represented by the selected population that was to participate in the program, an informal testing device was developed in order to assess the children's entering behaviour. The purpose of this battery was to assist with appropriate group placement.

Descriptive data from the application form and patterns of task performance were assessed in order to determine in which of the six areas the child was experiencing the most difficulty. The child was then assigned to the most appropriate group.

Teenage staff members were assigned to a particular task and administered this to each of the 120 children.

Following is a description of the several tasks designed to assess the children's abilities in each of the six major areas of the program.

AUDITORY TASKS

Five tasks were used to assess auditory behaviour. One of these (Morse code) involved a strong visual component and was used, in combination with other data, for assignment to either the visual or the auditory group. This task will be discussed on page 77. Another of the five tasks involved two categories. This task, "A Story", contained a large language component as well as an auditory one.

Two of the auditory tasks were auditory closure and sound blending. The wordlists of the ITPA (Kirk, McCarthy, and Kirk, 1968) of the same name were used as models.

In the auditory closure task, an incomplete word is presented verbally to the child (e.g., -encil, -rayon). The child must recognize and verbalize the appropriate Gestalt (e.g., pencil, crayon). In sound blending, on the other hand, the child is expected to synthesize parts to form a whole word. In this case, the stimulus might be t - a - ble, the appropriate response, table.

The use of the third auditory task was discontinued due to technical difficulties. The task consisted of a sequential presentation of five sound stimuli, each accompanied by three two-dimensional pictorial representations of objects, one being the source of the particular sound. The child's task was to select the appropriate visual stimulus in each case.

The task, labelled "A story", had both auditory and language components. In this instance, the child was read a short paragraph. He was then expected to: (a) retell the story; (b) answer factual questions, and (c) answer interpretive questions. Incomplete data was available on this task as there were technical difficulties in recording the child's retelling of the story.

LANGUAGE

Apart from "A Story", two other language tasks were developed to assess language behaviour. These two tasks required that the child's responses be taped; however, background noise was found to interfere to such an extent as to render the data almost undecipherable. The first task, "finger puppets", used small animal figures that could be placed over one finger. The child was presented verbally with a situation, told to pretend he was the animal represented by the puppet, and then respond to questions directed via the examiner's puppet.

The second task consisted of three pictures presented sequentially to the child. He was asked: (a) to tell a story about the picture; (b) what happened before the picture was taken; (c) what is happening now, and (d) what will happen next.

ATTENTION TASKS

Two tasks were devised in order to assess children's skill in this area. The first was called, "Who has seen the candy?". The materials necessary were three cups and one candy. The child was to watch as the examiner placed the candy under the center cup. He continued watching as the examiner made 5 changes in the position of the cups. The child was then to identify under which cup the candy may be found. Three trials were presented: in each one the candy was placed under a different cup; the movement of the cups remained the same throughout the three trials. This movement was slow, the purpose being to allow the child to visually track the appropriate cup. The object of the task was to determine whether or not the child could concentrate on the cups, ignoring whatever else was going on around him. The administrator was to record the child's response and the number of times he (the child) looked away from the cups. A child who looked away many times on one trial, or more than twice on two or more trials, was considered to have failed.

The second task was called "light attention". Two small flashlights were used, the child having one and the examiner the other. The flashlights were covered with coloured fabric to prevent glare. The child was directed to watch the flashlight held and turned on by the examiner for two minutes and instructed to turn his (the child's) on as soon as the examiner's went off. The examiner was to record the number of times the child turned his eyes or head away from the target during the four 30-second periods. If

the child looked away two or more times in more than one 30-second period, he was considered to have failed.

GROSS MOTOR TASKS

Four tasks were considered for this group. Initially, it was decided to have one task designed to test balance and posture, and one to test muscle strength. The first was an adaptation of the walking board task from the Purdue Perceptual Motor Survey (Roach and Kephart, 1966), and the second involved the child lifting various weights with his four limbs. This latter task proved to have too many problems inherent in its design and abandoned in favor of the "hammer and nail task". For this, the child was expected to hammer nails into a piece of wood. However, during the initial testing session, the noise factor from this task interfered greatly with other tasks being administered so it was abandoned for an adaptation of the Kraus-Weber subtest from the Purdue Perceptual Motor Survey.

The walking board task required that a child walk forward, backward and sideways with a right and a left lead, along the 4" side of a 2" x 4" plank 8 feet long. The examiner was to record the number of times a child stopped, and the number of times he stepped off the board for each of four trials, and to report if he rushed or had difficulty.

If the child stepped off the board two or more times on more than one trial, or if there were negative comments on the record sheet, he was considered to have failed.

The fourth gross motor task, the adaptation of the Kraus-Weber test of muscular fitness (Roach and Kephart, 1966), consisted of six items:

1. child proceeds from prone position to sitting position without the use of his hands (examiner holds feet to the floor);

2. similar to 1., but with knees bent;
3. same initial position--legs raised 10 inches from the floor and held for 10 seconds (legs straight);
4. child lies with stomach on the floor, feet held, head, shoulders and chest raised off the floor for 10 seconds;
5. child lies face down, head on hands, raises legs off the floor keeping knees straight and holds for 10 seconds;
6. child touches fingertips to floor with legs together and straight.

"Pass" consists of three or more successes.

FINE MOTOR TASKS

Three tasks were designed to test the children's fine motor ability. The first of these was "needle threading". Five needles of varying size were presented to the child, one at a time, beginning with the largest and proceeding in order of size. The child was to thread each needle in turn. Recording consisted of noting with which hand the child held the needle and the length of time it took to complete each threading. Failure criteria consisted of a long time for task completion, negative comments, and change of hands.

The "shoe-lacing" task required that a child successfully lace a man's shoe with six holes. "Bow-tying" demanded that a child be able to tie a bow successfully.

VISUAL TASKS

Four tasks were designed to determine whether or not a child had visual problems. A fifth task involved both the visual and auditory processes and thus was used in combination for assignment to either the visual or the auditory group.

"Form copying and form reproduction" was one of the tasks used. It consisted of two parts. Each child was presented serially with three cards upon which were various shapes. The child had to copy the designs using paper and pencil. He was then presented with a second series of three forms each presented for 10 seconds. At the end of the time limit, the stimulus was removed and the child directed to draw the design from memory. Scoring criteria was pass-fail.

Visual tracking was the second task in this group. The materials consisted on one board 1/2 inch thick, 2 feet wide and 3 feet high. A switch-back pattern had been cut through the board from top to bottom. A yellow ball, one inch in diameter, was slowly moved along the path. The child was directed to watch the ball wherever it went, without moving his head. Recording procedure involved noting whether or not the child had difficulty following the visual stimulus and, if he did, was it from left to right; right to left, or both. The child was passed if he had no difficulty.

"Picture sorting" was a third task. Here the children were presented with a series of pictures that required sorting according to the criteria of "in", "on", "behind", "in front of", "under", "beside-left", and "beside-right". One series of cards presented a cup, each picture showing the spoon in various relationships according to the aforementioned categories. The examiner was to count and record the number of incorrect responses for each category. Six, or more, incorrect responses were considered failure unless all six incorrect responses were in one category. This task was used for children five to eight years.

The "house, tower, and tree" task was used with children nine to eleven years. Three-dimensional, miniature forms of a house, a tower and

a tree, were placed on a board in a fixed position. Eight photographs, representing views from various angles, were presented to the child, who remained seated in a fixed spot relative to the house, tower, and tree arrangement. A doll was then moved to eight different positions around the board. With each placement the child was asked to select the picture which represented the view the doll was seeing. Four incorrect responses constituted failure.

"Classification of animals" was the fourth task designed. Three envelopes, labelled ducks, birds, and animals, contained pictures of each label category. The child was asked: (a) can the ducks be put in envelope labelled birds; (b) birds in one labelled animals; (c) ducks in one labelled animals; (d) birds in one labelled ducks; (e) animals in one labelled birds, and still keep the same label. The child was asked why, after he responded. Three or more incorrect responses were considered a failure.

The task, labelled "Morse code", involved auditory visual translation and was, therefore, considered as part of both the visual and auditory batteries. That is, if a child failed this and other auditory tasks, he was placed in this group, while if he failed this and other visual tasks, his assignment was to the visual group.

In this task, the child was presented with four cards on which were depicted various arrangements of dots and dashes. He was then presented with an auditory stimulus of dots and dashes that was represented on one of the visual stimuli. He was asked to select the correct visual representation of the auditory stimulus. Three different trials were administered. Failure was two or more incorrect responses.

APPENDIX E

Selection and Training of Teenage Staff Members

SELECTION

While the program was being developed by the project consultant and the two graduate students, the organizers were recruiting applications for the fifteen staff positions from the local secondary schools. These applicants completed a form with the following information:

Name
Age
Address
Phone
Previous work or relationship with children
Special skills (music, art, drama, gym, swim, etc.)
Reason for wanting to work with the program
Person who referred the applicant

Each prospective employee was then interviewed the two supervisors (graduate students) and asked what experience he had had with children, with what type of child he had worked, what role he had played, and had the experience been enjoyable. The nature of the program was described to the teenager who was then asked how he saw himself, with his particular skills, fitting into the program. A final question was asked concerning transportation as it was anticipated that this would present a problem.

Four characteristics were felt to be important in staff members:

(a) the ability to be directive, (b) willingness to take directions, (c) the ability to function independently and responsibly, (d) the manner in which they perceived children. Applicants verbal and written responses were assessed for these characteristics and each individual received a score of:

- 0 = definitely not acceptable
- 1 = poor
- 2 = average
- 3 = good

on each criterion. Individuals were selected mainly on the basis of total obtained score.

The sex of the applicant was also a determining factor. As the prevalence of learning disabilities is higher among boys than among girls (McCarthy and McCarthy, 1969), it was anticipated that the program enrollment would reflect this fact. Since the children were all of elementary school age (5-11 years) and there is a tendency for the elementary teaching positions to be filled by women rather than men, it was considered important to have as many male staff members as females. Of the original 30 applications, 27 were from teenage girls. Final selection was postponed until 11 more male applicants were recruited and interviewed. The staff employed consisted of eight girls and seven boys.

An applicant's previous experience was of particular importance when it was necessary to make a choice between two applicants who were equally matched on other criteria.

A teenager's special skills were not considered as a criterion for employment. Since the program was designed to help children develop abilities in deficit areas, it was not essential to have staff members who were highly proficient in such areas as music and arts and crafts. In fact, in some instances, it was found that teenagers with minimal skills in particular areas were better able to simplify the task in order to provide the child with a successful experience. After final selection of staff members, however, it was found that a wide variety of special skills did exist among prospective employees.

TRAINING

A three day training course was designed for the teenagers by the program consultant and the supervisors.

The first session began with an introduction to learning disabilities. This topic was presented in relation to the designed program and to the children who had been selected. It was emphasized that the children, although they generally possessed average or above average intelligence had specific deficits in one or more of the areas of audition, language, attention, gross motor coordination, fine motor coordination, or vision. Group discussion was initiated with the intent of investigating the staff's ability to integrate and apply the theoretical content. Realistic situations were presented to the teenagers (e.g., If you were working with a child who had difficulty following directions, what behaviour might you expect to see? What might you do about it?) for consideration. Their responses were directed by the consultant and the supervisors toward task modification and/or simplification according to the needs of the individual child.

As each staff member was to keep daily anecdotal records on all the children with whom he/she worked, a lecture on the Observation and Recording of Behaviour was presented. Here the emphasis was placed on the difference between observation and judgement, data resulting from the former being an essential prerequisite to the formulation of hypotheses or judgements.

Time was also spent describing the summer program and the roles of the various staff members with particular reference to the responsibilities of the teenagers.

One morning was devoted to familiarization with the task battery. Each staff member was assigned a particular task(s) and practiced administering this (these) to the rest of the group. The teenagers were well supervised

to insure that specified administration procedures were followed and that they were aware of the importance of this for collecting usable information.

The teenagers were then organized into three subgroups. Each subgroup consists of individuals who were to be responsible for one of two particular sets of activities (e.g., auditory and language, fine and gross motor, etc.) and either the consultant or one of the supervisors. Discussion centered around (a) the type of activities appropriate for the children in the groups, (b) the type of problems the children would be most likely to encounter, (c) techniques for behaviour management.

The third morning was spent familiarizing staff members with the children to whom they were assigned, and discussing professionalism and the confidentiality of information.

At the final session, the staff members were shown a video-tape of six children being informally tested. They (the teenagers) were directed to record behavioural observations that were to be discussed after the showing.

Following is a summary of the three day training session.

- | | | |
|-------|------|--|
| Day 1 | a.m. | The nature of learning disabilities (lecture)
Variations in functioning among children with
learning disabilities (discussion) |
| | p.m. | Techniques for observing and recording behaviour
(lecture)
Design of program and roles of staff members
(lecture) |
| Day 2 | a.m. | Familiarization with task battery (practice) |
| | p.m. | Familiarization with particular group
activities (small group discussions) |
| Day 3 | a.m. | Discussion of individual children and their
problems.
Professional ethics. |
| | p.m. | Videotape and discussion of observations. |

Through the summer the staff members were supervised at all times.

Each graduate student was present during one treatment period for each of the four groups of children per week. During this time, staff training was continued. Using the lecture "observation and recording of behaviour" as a foundation and their own daily anecdotal records as departure points, the teenagers were assisted in differentiating between recording of factual data and making judgemental comments. They were given immediate direction in task modification when they were observed insisting a child "do better" or "try harder" and in task development when they were observed using inappropriate activities. Behaviour management techniques were dealt with in a similar fashion. If staff members were observed being punitive or non-directive, assistance was given in the simplification of tasks and the use of specific, directive techniques. The teenagers were encouraged to ask for help as often as they felt it necessary.

A weekly two-hour seminar was held at which time the staff could discuss the problems that had occurred and receive direction from the consultant and the supervisors.

APPENDIX F

Parental Involvement

Parents were informed, via a written announcement brought home by their children, that the program consultant was available on Wednesday afternoons. At this time, she would meet with parents who requested interviews to discuss their child's abilities and ways in which they (the parents) could help their child.

All children were retested with the task battery during the final week of the program. Reports on a child's overall program behaviour, based on task battery performance and daily anecdotal recordings, were sent to parents on request.

General results of the pilot project and recommendations for a future program were presented to the parents at a meeting of the Surrey chapter of the Association for Children with Learning Disabilities in February, 1972.