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PSYCHOLOGICAL ANALYSIS OF CAMP ACTIVITIES IN SELECTED KENNEDY FOUNDATION SPONSORED CAMPS FOR THE MENTALLY RETARDED.

BY- PAINTER, GENEVIEVE
ILLINOIS UNIV., URBANA, INST.RES.EXCEPT.CHILDREN

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DESCRIPTORS- *EXCEPTIONAL CHILD RESEARCH, *MENTALLY HANDICAPPED, *RECREATION, ADULTS, CHILDREN, DAY CAMP PROGRAMS, EDUCABLE MENTALLY HANDICAPPED, MODELS, PROGRAM EFFECTIVENESS, PROGRAM EVALUATION, PROGRAM IMPROVEMENT, PSYCHOLINGUISTICS, RECREATIONAL ACTIVITIES, RECREATIONAL PROGRAMS, SUMMER PROGRAMS, TRAINABLE MENTALLY HANDICAPPED, CAMPING, KENNEDY FOUNDATION,

RECREATIONAL ACTIVITIES OBSERVED AT SIX SUMMER DAY CAMPS (REPRESENTATIVE OF 26 SUCH CAMPS SPONSORED BY THE KENNEDY FOUNDATION) ARE REPORTED. EACH CAMP WAS VISITED AND THE FIRST 25 ACTIVITIES PRESENTED WERE ANALYZED BY ONE OF TWO THEORETICAL MODELS. THE MODEL FOR MEANINGFUL (COGNITIVE) ACTIVITIES WAS USED TO RATE ACTIVITIES IN TERMS OF INTERPRETATIVE INPUT (AUDITORY, VISUAL, HAPTIC), MEANINGFUL INTERGRATION AUDITORY-VOCAL, AUDITORY-MOTOR, VISUAL-VOCAL, VISUAL-MOTOR, HAPTIC-VISUAL, HAPTIC-MOTOR), AND EXPRESSIVE OUTPUT (VOCAL, MOTOR, VOCAL-MOTOR). THE MODEL FOR IMITATIVE (AUTOMATIC) ACTIVITIES WAS USED TO RATE ACTIVITIES IN TERMS OF AUTOMATIC SENSORY INPUT (AUDITORY, VISUAL, HAPTIC), IMITATIVE INTEGRATION (RHYTHM, SPATIAL RELATIONS, LATERALITY, BODY IMAGE, AND NON-MEANINGFUL AUDITORY-VOCAL, AUDITORY-MOTOR, VISUAL-VOCAL, VISUAL-MOTOR, HAPTIC-VOCAL, HAPTIC-MOTOR), AND PERFORMANCE OUTPUT (IMITATIVE VOCAL, MOTOR, VOCAL-MOTOR). ALSO, EACH ACTIVITY WAS RATED ON EFFECTIVENESS IN GAINING CAMPERS' ATTENTION, SEQUENCING INSTRUCTION, SUCCESS OF PERFORMANCE, TYPES OF MOTOR REQUIREMENTS, AND TYPES OF SOCIAL INTERACTION. A CAMP DESCRIPTION AND AN ACTIVITY ANALYSIS ARE PRESENTED FOR EACH OF THE SIX CAMPS. A SUMMARY TABLE COMPARES THE ACTIVITY COMPONENT ANALYSES. RESULTS INDICATES THAT (1) IMITATIVE ACTIVITES WERE MOST FREQUENT IN ALL CAMPS, (2) HAPTIC INPUT OCCURRED ONLY OCCASIONALLY, (3) MOTOR OUTPUT WAS MOST FREQUENT, (4) MOST FREQUENT INTEGRATION COMPONENTS WERE VISUAL-MOTOR AND AUDITORY-MOTOR, (5) FEW ACTIVITIES WERE SEQUENCED INSTRUCTIONALLY IN SMALL STEPS, AND (6) COOPERATIVE PLAY WAS SELDOM OBSERVED. SUGGESTIONS FOR ACTIVITY MODIFICATIONS INCLUDE (1) RAISING THE LEVEL OF ACTIVITIES FROM IMITATIVE TO MEANINGFUL, (2) DIVERSIFYING INPUTS AND OUTPUTS, (3) DIVERSIFYING INTEGRATION, (4) INCREASING ATTENTION SPAN, (5) DEVELOPING SEQUENCED INSTRUCTION IN SMALL STEPS, AND (6) INCREASING SOCIAL INTERACTIONS. EXAMPLES OF POSSIBLE MODIFICATIONS FOR EACH OF THE ABOVE ARE GIVEN. A TABLE LISTING ACTIVITY COMMONALITY AMONG ALL SIX CAMPS IS INCLUDED. (RS)

PSYCHOLOGICAL ANALYSIS OF CAMP ACTIVITIES IN SELECTED KENNEDY FOUNDATION SPONSORED CAMPS FOR THE MENTALLY RETARDED

by

Genevieve Painter

Institute for Research on Exceptional Children
University of Illinois
Urbana, Illinois

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PSYCHOLOGICAL ANALYSIS OF CAMP ACTIVITIES IN SELECTED KENNEDY FOUNDATION SPONSORED CAMPS FOR THE MENTALLY RETARDED*

INTRODUCTION

This is a report of the recreational activities conducted at a sample of summer day camps sponsored by the Kennedy Foundation. The purpose of the study was to (a) observe activities in camps for mentally retarded children, (b) analyze these activities in terms of a theoretical cognitive model, and (c) suggest modifications of certain activities.

From the total of twenty-six Kennedy Foundation sponsored camps a sample of six was chosen on the bases of geographical differences, community-type differences, and similarity and differences in program offerings. The six camps comprising the sample were located at Dayton, Ohio; Manchester, Connecticut; New York, New York; Phoenix, Arizona; Rockville, Maryland; and Quincy, Massachusetts. The individual camps were visited for a period of two to three days each, which allowed sufficient time to observe and analyze the first 25 activities presented in the camp's regular program.

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This study would not have been possible without the aid and ready cooperation of the camp directors, their staffs, and the campers of the various camps; the investigator wishes to express sincere thanks and appreciation to all.

PART I - PROCEDURE

Activities Observed in Six Camps

Table I lists the 25 activities observed at the six sample camps. It will be noted that no camp shows all 25 activities. This does not necessarily mean that some of those not listed were not offered during some other phase of the camp's season.

Arts and crafts, low organized games, singing, and swimming were found at each of the camps; only one camp offered horseback riding, and only two provided boating and trampolines. Although all recreational activities encourage certain learnings, only one camp structured activities which were primarily for education or self-care purposes rather than for recreation. These activities were speech therapy, shoe lacing, sewing, cooking, and mirror imitation movements. This particular camp did not offer physical exercises per se, but was the only camp utilizing large building blocks for the purpose of providing physical exercise through weight moving.

It will be noted from Table I that the most common activities utilized in the six camps were:

Activity	Number of Camps
Arts and Crafts	6
Low Organized Games	6
Singing	6
Swimming	6

The next most frequent activities were:

Activity	Number of Camps
Closing Ceremony	5
Dancing	5
Flag Raising	5
Marching	4
Physical Exercise	5

The least frequent activities were:

Chemical Garden	1
Dramatics	1
Exercises with Weights	1
Fishing	1
Flannel Board	1
Horseback Riding	1
Kick Ball	1
Hiking	1
Lack Shoes	1
Large Building Blocks	1
Mirror Movements	1
Puppetry	1
Puzzles	1
Scavenger Hunt	1
Sewing	1
Small Animal Care	1
Speech Therapy	1
Volleyball	1

Table I

ACTIVITIES OBSERVED, CAMP LOCATION, ACTIVITY COMMONALITY

ACTIVITY*	Camps: Dayton, Ohio	Manchester, Conn.	New York, New York	Phoenix, Arizona	Rockville, Maryland	Quincy, Mass.	TOTALS
Archery	x				x		2
Arts and Crafts	x	x	x	x	x	x	6
Baseball		x	x			x	3
Basketball toss			x	x			2
Boating					x	x	2
Chemical Garden				x			1
Closing Ceremony	x	x		x	x	x	5
Cooking	x		x				2
Dancing	x	x		x	x	x	5
Dramatics				x			1
Exercises w/weights				x			1
Fishing	x						1
Flag Raising	x	x		x	x	x	5
Flannel Board	x						1
Free play at playground	x	x	x				3
Horseback riding					x		1
Kick ball						x	1
Hiking		x					1
Lace shoes			x				1
Large building blocks			x				1
Low organized games	x	x	x	x	x	x	6
Marching	x	x		x	x		4
Mirror movements			x				1
Nature activities	x	x	x				3
Obstacle Course		x			x		2
Physical exercises	x	x		x	x	x	5
Puppetry				x			1
Puzzles (jigsaw)			x				1
Races		x	x				2
Rhythm instruments	x			x			2
Scavenger hunt		x					1
Sewing			x				1
Singing	x	x	x	x	x	x	6
Small animal care		x					1
Speech therapy			x				1
Story telling		x		x			2
Swimming	x	x	x	x	x	x	6
Trampoline					x	x	2
Tricycle riding	x		x				2
Tumbling				x	x		2
Volley ball		x					1

*25 activities were observed at each camp; some were duplications or subdivisions of one activity.

As previously noted, certain activities or their prototypes under differing names, proved to be common to all camps of the sample, whereas certain other ones were more or less singular in frequency. Singularity might be a result of availability -- for example horseback riding and boating. In other cases singularity might be an outgrowth of creative programming, resulting in a unique activity -- for example movements in front of a mirror.

Camps utilizing college and high school student volunteer counselors in program planning, offered the greatest number and variety of activities. The camps placing the greatest stress on active sports offered the least in variety of activities.

Theoretical Models

In order to analyze activities in terms of context, theoretical models dealing with automatic and cognitive abilities were organized before camp visitations began. Figure I shows the Model for Meaningful Activities and Figure II the Model for Imitative Activities

Model for Meaningful Activities

Figure I presents the model for the meaningful or representational level of activities. It will be noted that this scheme allows for (a) sensory input -- auditory, visual, or haptic, -- and includes the interpretation of the meaning; (b) integration of meaningful materials; and (c) expression or encoding through vocal, motor, or a combination of vocaland motor performance. An outline of components follows:

INPUT--Interpretative: interpreting the significance of sensory input.

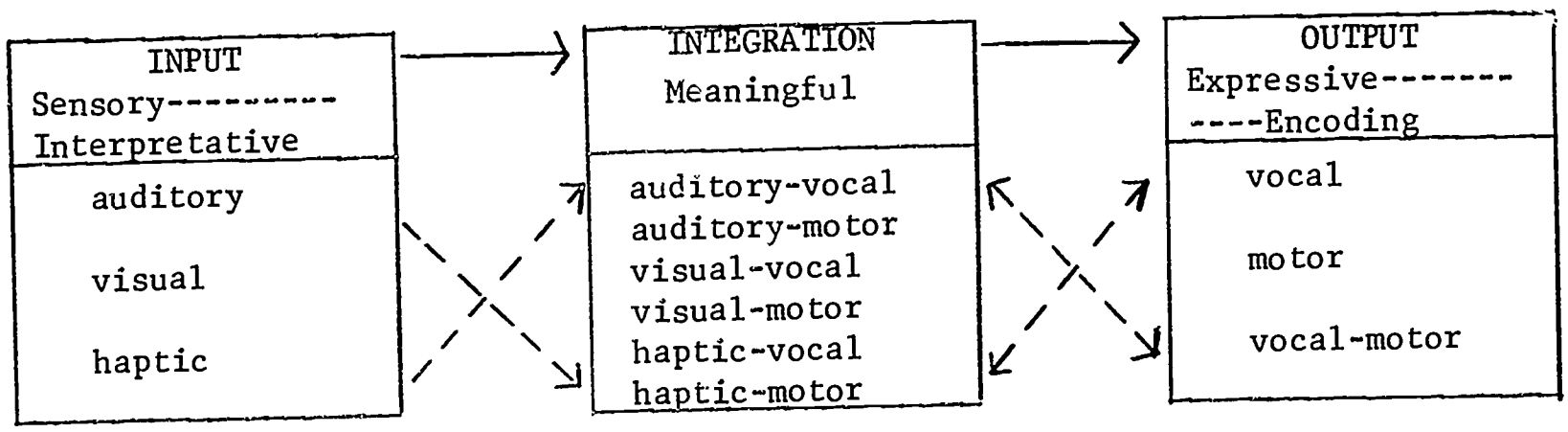
auditory: through the ears

visual: through the eyes

haptic: through tactile and kinesthetic senses

Figure I

MODEL FOR MEANINGFUL ACTIVITIES



INTEGRATION--Meaningful:

auditory-vocal: integration of auditory input and vocal output (meaningful)

auditory-motor: integration of auditory input and motor output (meaningful)

visual-vocal: integration of visual input and vocal output (meaningful)

visual-motor: integration of visual input and motor output (meaningful)

haptic-vocal: integration of haptic input and vocal output (meaningful)

haptic-motor: integration of haptic input and motor output (meaningful)

OUTPUT--Expressive: meaningful performance (encoding).

vocal: meaningful expression through the vocal system (vocal encoding)

motor: meaningful expression through the muscles (motor encoding)

vocal-motor: integration and simultaneous performance of meaningful vocal and motor expression (encoding)

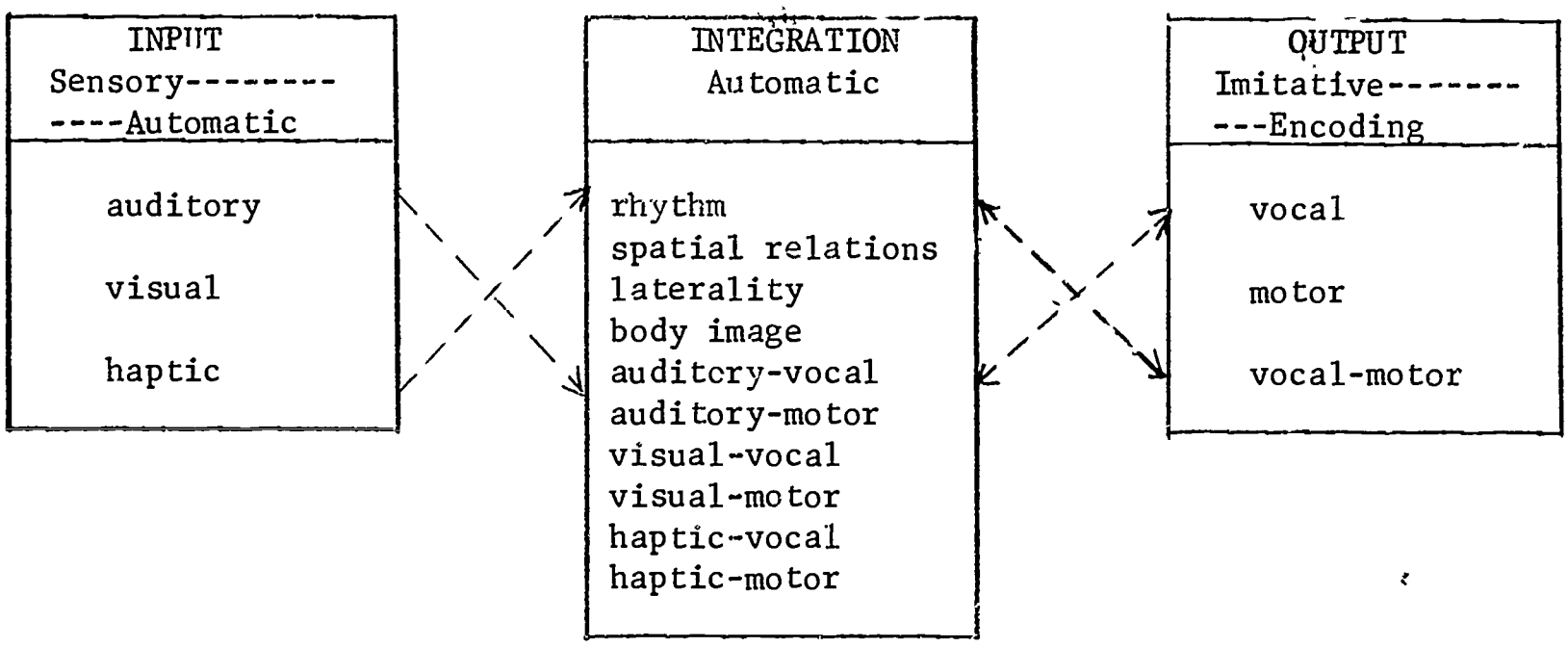
Model for Imitative Activities

Figure II presents the model for the imitative of non-meaningful level of activities. It will be noted that this model as well as the previous one includes

input, association, and output components except that these are less semantic and more automatic. An outline of the breakdown follows Figure II:

Figure II

MODEL FOR IMITATIVE ACTIVITIES



INPUT: through the senses

auditory: through the ears

visual: through the eyes

haptic: through tactile and kinesthetic senses

INTEGRATION--Imitative: non-meaningful integration

rhythm: recurrence of grouped units of time and accent

spatial relations: space structure in which each object is in its proper relationship to oneself and to each of the other objects

laterality: discrimination between the right and left sides of one's own body

body image: the picture or mental representation one has of his own body at rest or in motion at any moment

auditory-vocal: integration of auditory input and vocal output (non-meaningful)

auditory-motor: integration of auditory input and motor output (non-meaningful)

visual-vocal: integration of visual input and vocal output (non-meaningful)

visual-motor: integration of visual input and motor output (non-meaningful)

haptic-vocal: integration of haptic input and vocal output (non-meaningful)

haptic-motor: integration of haptic input and motor output (non-meaningful)

OUTPUT: Performance

vocal: through the vocal system (imitative mimicry)

motor: through the muscles (imitative motor skills)

vocal-motor: integration and simultaneous performance of vocal and motor (imitative)

Applying the Models to Camp Activities

Each activity was classified as either imitative or meaningful and also analyzed according to the components of the theoretical model in which it was classed.

Breakdown of Components of a Meaningful Activity

To illustrate the analysis and breakdown of the components of a meaningful activity, square dancing will be used as an example and checked as illustrated in Figure III.

Figure III

ACTIVITY OBSERVATION -- COMPONENT CHECKLIST

FOR MEANINGFUL ACTIVITY

Classification: Meaningful ✓ Imitative ____ Activity: Square Dance

MEANINGFUL CLASSIFICATION

Categories and Components

Sensory-Interpretive	Integration - Meaningful	Expression - Realization
Auditory ✓	Auditory-Vocal ✓	Vocal ____
Visual ✓	Auditory-Motor ✓	Motor ____
Haptic ✓	Visual-Vocal ✓	Vocal-Motor ✓
	Visual-Motor ✓	
	Haptic-Vocal ✓	
	Haptic-Motor ✓	

IMITATIVE CLASSIFICATION

Categories and Components

Sensory - Automatic	Integration - Automatic	Imitation
Auditory ____	Rhythm ____	Vocal ____
Visual ____	Spatial ____	Motor ____
Haptic ____	Laterality ____	Vocal-Motor ____
	Body Image ____	
	Auditory-Vocal ____	
	Auditory-Motor ____	
	Visual-Vocal ____	
	Visual-Motor ____	
	Haptic-Vocal ____	
	Haptic-Motor ____	

Input.--On hearing simple calls which he understood, the camper moved, thus the auditory component was checked. On more difficult calls, the caller also demonstrated the action, thus giving a visual stimulus; consequently the visual component was also checked. In yet more complicated calls, the caller took the child by the hand and moved him bodily, thus the haptic component was checked.

Output.--The child's performance was in movement; he also sang the call as he moved. Thus the vocal-motor component was checked.

Integration.--The child had been given visual, auditory, and haptic instruction, from which he performed vocally and motorically; thus the visual-vocal, visual-motor, auditory-vocal, auditory-motor, haptic-vocal, and haptic-motor components were checked.

Breakdown of Components of an Imitative Activity

To illustrate the analysis and breakdown of the components of an imitative activity, physical exercise will be used as an example and checked as illustrated in Figure IV.

Input.--The instructor demonstrated and verbalized the instructions; therefore, the auditory and visual components were checked.

Output.--The child performed in motor movement and said the movement as he performed; consequently, the vocal-motor component was checked.

Integration.--The child had been given visual and auditory instruction and performed both vocally and motorically, thus the visual-vocal, visual-motor, auditory-vocal and auditory-motor components of the Integration category were checked. Because they are pertinent, the laterality and body image components were also checked in this activity.

Figure IV

ACTIVITY OBSERVATION -- COMPONENT CHECKLIST

FOR IMITATIVE ACTIVITY

Classification: Meaningful ___ Imitative ✓ Activity: Physical Exercise

MEANINGFUL CLASSIFICATION

Categories and Components

Sensory-Interpretive	Integration - Meaningful	Expression - Realization
Auditory _____	Auditory-Vocal _____	Vocal _____
Visual _____	Auditory-Motor _____	Motor _____
Haptic _____	Visual-Vocal _____	Vocal-Motor _____
	Visual-Motor _____	
	Haptic-Vocal _____	
	Haptic-Motor _____	

IMITATIVE CLASSIFICATION

Categories and Components

Sensory - Automatic	Integration - Automatic	Imitation
Auditory ✓	Rhythm _____	Vocal _____
Visual ✓	Spatial _____	Motor _____
Haptic _____	Laterality ✓	Vocal-Motor ✓
	Body Image ✓	
	Auditory-Vocal ✓	
	Auditory-Motor ✓	
	Visual-Vocal ✓	
	Visual-Motor ✓	
	Haptic-Vocal _____	
	Haptic-Motor _____	

Additional Observations and Analyses

In addition to checking according to the theoretical models and their components, activities were further examined for (a) effectiveness in gaining campers' attention, (b) for sequencing instruction in graduated steps, and (c) for success of performance. (Figure V) These were enumerated on a four point scale:

A. Representing no concern for the item

B. Representing a small degree of concern for the item

C. Representing a moderate degree of concern for the item

D. Representing a high degree of concern for the item.

The types of motor requirements were classified as follows: active or quiet; gross or fine. (Figure V)

The types of social interaction emerging during an activity were classified as follows: (a) individual when the camper was engaged by himself; (b) parallel when the campers were in a group but not interacting with each other; and (c) cooperative when two or more campers were required to work together (Figure V).

FIGURE V

ADDITIONAL OBSERVATIONS CHECK LIST

Attention

A B C D

Sequencing

A B C D

Success

A B C D

Motor

A B C D

Interaction

Individual___ Parallel___ Cooperative___

PART II - INDIVIDUAL CAMP ACTIVITY ANALYSES: COMPONENT COMPARISONS

Activity Analyses of Each Camp

This section of the report will offer a summary analysis of the observations for each of the six sample camps. General information about the operations of the camps--the duration of camp periods, the IQ level of enrolled campers, and the goals and objectives--was obtained from interviews with the camp directors and from available camp literature.

As stated previously, the first 25 activities presented in the regular programs were observed in each of the six camps. They were analyzed according to the components of the theoretical models organized for this purpose. (Figures I and II). Additional observations were made in terms of (a) the effectiveness of presentation, (b) the types of motor requirements, and (c) the types of social interaction (Figure V).

The analyses of the activities components were totaled, and are herein presented in an Activity Analysis Chart for each of the six camps (Figures VI, VII, VIII, IX, X, and XI) A summary of the activity analysis of each camp is given in the text which follows.

Finally, Table II shows an overall summary and comparison of the analyses of all six camps.

Dayton, Ohio

General Information

The CRC Day Camp is operated by the Council for Retarded Children, Montgomery County, Ohio. The camp site, maintained for handicapped children, is owned by the Dayton Variety Club One hundred severe retardates, IQ 30 to 50, chronological ages 6 to 45 years, attended each of two three-week sessions, 4 days a week, 5 hours daily. Of these, 25 campers, ages 6 to 9 years, were under the direction of the Small Children Supervisor; their program was conducted in

a specially designated and fenced-in play area. The counselor-camper ratio was 1:1 in this group, and the program was unstructured, with free-play as the general routine. The other 75 campers were divided into groups by chronological age and ability level and were given a structured program, at a 1:2 counselor-camper ratio. All 100 campers were under the supervision of the Camp Director.

The camp objectives are: (a) enjoying fun and fellowship; (b) having as many normal experiences as possible; (c) developing responsibility; (d) experiencing suitable discipline; (e) being accepted and loved by others; (f) making the community aware of the fact that retardates can enjoy and benefit from camping experience as do normal children; (g) providing adults, high school, and college student volunteers an experience which will benefit them.

Program activities include: arts and crafts, fishing, music, baseball, obstacle course, archery, dancing, cooking, tours, swimming, and bicycling.

Activity Analysis

17 of the 25 activities observed were classified as imitative and 8 were classified as meaningful. In the imitative activities, visual and auditory inputs were utilitzed, with heavier emphasis being on the auditory imput; imitative output consisted of 12 motor responses , 1 vocal response, and 4 vocal-motor responses. There was an emphasis on rhythmic training.

Of the 8 meaningful activities, auditory and visual inputs were used primarily; 3 used haptic imputs as well. One activity resulted in vocal output, 3 in motor output, and 4 in vocal-motor output.

Eleven activities gained the campers' attention; 10 activities were engaged in with little or no attention paid by the campers. Twelve activities were completed successfully; 7 resulted in a moderate degree of success.

Motor requirements of the activities were 8 active, 15 gross, 17 quiet, and 10 fine. Social interaction revealed: 3 individual 22 parallel, and none cooperative (Figure VI).

Figure VI

ACTIVITY ANALYSIS--Dayton, Ohio

Classification: Meaningful: 8* activities Imitative: 17 activities

Meaningful (8 activities)

Sensory-Interpretive		Integration - Meaningful		Expression - Realization	
Auditory	7*	Auditory-Vocal	4	Vocal	1
Visual	6	Auditory-Motor	6	Motor	3
Haptic	3	Visual-Vocal	2	Vocal-Motor	4
		Visual-Motor	4		
		Haptic-Vocal	1		
		Haptic-Motor	3		

Imitative (17 activities)

Sensory-Automatic		Integration - Automatic		Imitation	
Auditory	15	Rhythm	7	Vocal	1
Visual	9	Spatial	0	Motor	12
Haptic	1	Laterality	2	Vocal-Motor	4
		Body Image	2		
		Auditory-Vocal	1		
		Auditory-Motor	11		
		Visual-Vocal	1		
		Visual-Motor	9		
		Haptic-Vocal	1		
		Haptic-Motor	2		

Additional Observations

Attention

No. 9	1	4	11
A	B	C	D

Sequencing

No. 22	2	0	1
A	B	C	D

Success

No. 6	2	5	12
A	B	C	D

Motor

Active 8 Gross 15 Quiet 17 Fine 10

Interaction

Individual 3 Parallel 22 Cooperative 0

*Each numeral represents a total of the activities utilizing each component of the model.

Conclusion

This camp, enrolling the most severely retarded of the six camps visited, conducted a surprisingly well-structured program, of a type and degree which many professionals would probably consider impossible to develop at this IQ level. Many of the campers are involved in workshop programs conducted by the Council for Retarded Children during the remainder of the year. There was less stress on active sports and more on quiet activities because of the low ability level of the campers. The staff and volunteers were observed to be well trained and very enthusiastic in their approach.

Manchester, Connecticut

General Information

Camp Kennedy, Manchester, Connecticut, is operated by the City Park and Recreation Department. Fifty educable and trainable retardates, chronological ages 5½ to 30 years, attended each of three two-week sessions, 5 days a week, 6 hours a day. Some campers attended 2 or 3 of these camp sessions in sequence.

The staff-camper ratio was 1:1, consisting of over 50 high school and college student volunteers and 4 paid staff members. There was a very high degree of community support and enthusiasm for the camp. The volunteers were encouraged to take a large part in planning the program and often showed a high degree of originality as well as appropriateness in programming. The volunteers published a weekly camp newspaper which was well written and served to keep the community informed of camp events.

Each camper was assigned to a counselor. At the end of a week the camper was assigned to another counselor.

The campers were divided into four groups by chronological age and ability level. There were four major divisions of programming: (a) sports and athletics; (b) music and dancing; (c) arts and crafts; and (d) nature study.

The primary goals of the program were: (a) physical fitness; (b) socialization; and (c) communication.

The morning program was structured; the children were assigned by group to an activity area. The afternoon program was less structured; each group swam for a 45 minute period, with the remainder of the time spent in informal activities, the camper being allowed to select, with the help of his counselor, his own preference of activities. Some of the children and counselors gathered in informal groups to play games, while other campers chose to rest, read, use art and craft materials, playground equipment, and the like.

Activity Analysis

Of the 25 activities observed, 15 were classified as imitative and 10 as meaningful. Activities in both classifications were high in both visual and auditory inputs. Two-thirds of the imitative activities were involved in motor output and 1/3 in vocal plus motor output. Of the activities in the meaningful classification, the majority were in the motor output component (Figure VII).

Most of the presentations captured the attention of the campers. About two-thirds of the activities required active-gross, and the remainder quiet-fine, motor performance. None of the activities seemed to be concerned with sequencing in small steps of development. The social interaction was classified as follows: 6 individual, 10 parallel, and 9 cooperative (Figure VII).

Conclusion

The camp was well organized, volunteers and other staff members were effective in planning a varied program. Camper, staff, and community enthusiasm was at a very high level. From the analysis of activities this camp tended to emphasize growth in socialization (as represented by the parallel and cooperative activities) and physical fitness (as represented by the preponderance of motor rather than vocal performance and active-gross rather than quiet-fine motor requirement).

Figure VII

ACTIVITY ANALYSIS--Manchester, Connecticut

Classification: Meaningful: 10* activities Imitative: 15 activities

Meaningful (10 activities)

Sensory-Interpretive		Integration - Meaningful		Expression - Realization	
Auditory	10*	Auditory-Vocal	2	Vocal	0
Visual	10	Auditory-Motor	10	Motor	8
Haptic	3	Visual-Vocal	2	Vocal-Motor	2
		Visual-Motor	10		
		Haptic-Vocal	0		
		Haptic-Motor	3		

Imitative (15 activities)

Sensory-Automatic		Integration - Automatic		Imitation	
Auditory	15	Rhythm	5	Vocal	0
Visual	14	Spatial	0	Motor	10
Haptic	3	Laterality	4	Vocal-Motor	5
		Body Image	4		
		Auditory-Vocal	3		
		Auditory-Motor	8		
		Visual-Vocal	1		
		Visual-Motor	11		
		Haptic-Vocal	0		
		Haptic-Motor	3		

Additional Observations

Attention

	A	B	C	D
No.	0	3	3	19

Sequencing

	A	B	C	D
No.	25	0	0	0

Success

	A	B	C	D
No.	0	3	9	13

Motor

Active 17 Gross 18 Quiet 8 Fine 7

Interaction

Individual 6 Parallel 10 Cooperative 9

*Each numeral represents a total of the activities utilizing each component of the model.

New York, New York

General Information

Two camp programs for retarded children, one in Little Neck, New York, and the other in Huntington, New York, are sponsored by the Association for the Help of Retarded Children through the leadership of the Young Women-Young Men's Hebrew Association (YW-YMHA). The camps operate for 8 weeks, 5 days per week, 6 hours daily. A number of the enrollees are also in a program with the camp director during the academic year at the YW-YMHA.

The camp at Littleneck had 35 trainable children, chronological ages 4½ to 8 years, and 12 staff members. The camp at Huntington had 28 trainable campers, chronological ages 9 to 17 years, and 9 counselors. There were no volunteer staff members; all high school and college student counselors were paid staff.

The staff was given a week of orientation prior to the camp period. A weekly staff meeting and a bimonthly seminar were regularly scheduled for further training.

The general goals of both camps are: (a) helping with interpersonal relations; (b) training in self-help skills; and (c) helping behavior problems.

The programs include music, swimming, speech therapy, quiet games, active games and sports, puppetry, simple cooking, story telling, arts and crafts, play yard equipment, large building blocks, trips, self help skill (shoe lacing, buttoning), and mirror movements.

Activity Analysis

Seventeen activities were classified imitative and 8 meaningful. Of the imitative, 16 utilized visual, 12 auditory, and 5 haptic inputs. In the meaningful activities, both auditory and visual imputs were used. Of the output, the motor component was highest in all activities (Figure VIII).

Figure VIII

ACTIVITY ANALYSIS--New York, New York

Classification: Meaningful: 8* activities Imitative: 17 activities

Meaningful (8 activities)

Sensory-Interpretive		Integration - Meaningful		Expression - Realization	
Auditory	7*	Auditory-Vocal	0	Voc l	1
Visual	8	Auditory-Motor	4	Motor	7
Haptic	0	Visual-Vocal	0	Vocal-Motor	0
		Visual-Motor	6		
		Haptic-Vocal	0		
		Haptic-Motor	0		

Imitative (17 activities)

Sensory-Automatic		Integration - Automatic		Imitative	
Auditory	12	Rhythm	1	Vocal	0
Visual	16	Spatial	0	Motor	15
Haptic	5	Laterality	3	Vocal-Motor	2
		Body Image	3		
		Auditory-Vocal	0		
		Auditory-Motor	8		
		Visual-Vocal	0		
		Visual-Motor	12		
		Haptic-Vocal	1		
		Haptic-Motor	3		

Additional Observations

Attention

No.	1	1	0	23
	A	B	C	D

Sequencing

No.	23	0	0	2
	A	B	C	D

Success

No.	3	0	1	21
	A	B	C	D

Motor

Active 10 Gross 10 Quiet 15 Fine 15

Interaction

Individual 8 Parallel 13 Cooperative 4

*Each numeral represents a total of the activities utilizing each component of the model.

Almost all activities gained the children's attention and were successfully performed. Ten activities were active-gross and 15 quiet-fine in motor requirement. Most of the activities were presented without concern for sequencing instruction. The types of social interaction were classified: 8 individual, 13 parallel, and 4 cooperative (Figure VIII).

Conclusion

Both New York camps offered varied programs with an emphasis upon educational values. The director and assistant director were aware of the effectiveness of sensory training, the problems of retardates in laterality, body image, and the like, and programmed for their amelioration. The camps were well administered, functioned in an orderly manner, and illustrated creative program planning.

Phoenix, Arizona

General Information

The camps at Phoenix, Arizona are sponsored by the Maricopa County Council for the Mentally Retarded. Four 2-week camp sessions, 5 days per week, 5 hours daily, were offered with each session being in a different section of the city.

The camp which was visited had twelve enrolled campers, 11 trainable and one educable. There were 4 paid staff members and 3 volunteers. Although there was no official volunteer training program, the camp director often met with the volunteers to give informal training.

The major goal of the camp is the offering of planned recreation for the purpose of making the children happy.

The entire program with the exception of swimming was offered indoors because of the intense heat of the area. All children participated in one group. The following are the major program activities: opening circle, exercises, singing, rhythm instruments, marching, dancing, tumbling, arts and crafts, swimming, dramatics, and puppetry.

Figure IX

ACTIVITY ANALYSIS--Phoenix, Arizona

Classification: Meaningful: 3* activities Imitative: 22 activities

Meaningful (3 activities)

Sensory-Interpretive		Integration - Meaningful		Expression - Realization	
Auditory	3*	Auditory-Vocal	1	Vocal	0
Visual	2	Auditory-Motor	3	Motor	2
Haptic	0	Visual-Vocal	0	Vocal-Motor	1
		Visual-Motor	2		
		Haptic-Vocal	0		
		Haptic-Motor	0		

Imitative (22 activities)

Sensory-Automatic		Integration - Automatic		Imitation	
Auditory	21	Rhythm	5	Vocal	0
Visual	20	Spatial	0	Motor	16
Haptic	5	Laterality	4	Vocal-Motor	6
		Body Image	4		
		Auditory-Vocal	2		
		Auditory-Motor	15		
		Visual-Vocal	0		
		Visual-Motor	18		
		Haptic-Vocal	0		
		Haptic-Motor	4		

Additional Observations

Attention

No.	0	3	0	22
	A	B	C	D

Sequencing

No.	20	2	1	2
	A	B	C	D

Success

No.	7	2	1	15
	A	B	C	D

Motor

Active 11 Gross 14 Quiet 14 Fine 11

Interaction

Individual 3 Parallel 20 Cooperative 3

*Each numeral represents a total of the activities utilizing each component of the model.

Activity Analysis

Twenty-two activities were classified imitative and 3 meaningful. Almost all of the imitative activities utilized visual and auditory inputs and 5 included haptic input. The majority of activities at both levels used motor output, 7 used both vocal and motor output (Figure IX).

Twenty-two activities captured the children's attention, 15 were highly successful in performance, and few were sequenced. The motor requirements were: 11 active, 14 gross, 14 quiet, and 11 fine. The types of social interaction were: 2 individual, 20 parallel, and 3 cooperative (Figure IX).

Conclusion

The camp although low in attendance was well operated, the activities were within the range of ability of the campers, and many of the activities were creatively and imaginatively planned. This was the only camp in which dramatics and puppetry were offered at the time the observations were made. There was an adequate balance of gross and fine motor activities. The enthusiasm of the staff and the community was at a high level.

Rockville, Maryland

General Information

The Shriver Camp, Rockville, Maryland, had 100 educable and trainable retardates enrolled during the month of June, 5 days per week, 6 hours daily. The campers were counselled by high school and college student volunteers assigned at a ratio of 1:1. A certain number of the high school volunteers were recruited from culturally deprived areas. The volunteers were given extensive training prior to the opening of camp and for one hour preceding and one hour following each camp day. The training was given by the camp director and a core staff that supervised the daily operation of the program .

The major goals of the camp were: (a) the development of physical fitness; (b) the learning of social skills; (c) the learning of recreational skills to carry over into leisure time at home.

The campers were divided into eight groups by age and ability level. There were four major program areas to which each group was assigned for 30 to 45 minutes per day. The four major program areas were: (a) swimming; (b) dancing; (c) riding; and (d) confidence (obstacle) course. Other activities presented to the campers were: opening and closing ceremonies, exercises, arts and crafts, trampoline, canoeing, singing, tumbling, quiet games, active games, and sports.

The morning program involved each camper, with his assigned counselor, in activities which were determined as beneficial for the camper. The afternoon program was devoted to group activities in which the camper used the skills developed in the morning program. Ten to 15 of the older boys were in an active group program for the entire day at approximately a 4:1 ratio because they did not need an individual counselor.

Activity Observation

Twenty-one activities were classified as imitative and 4 as meaningful. Of the imitative activities, most were high in auditory and visual inputs, and in motor output. The meaningful activities were also high in auditory and visual inputs and motor output. Most of the presentations gained the campers' attention, and were usually successful in camper performance. One-third of the activities had a high degree of sequencing; the remainder were low, or were not planned sequentially. Most of the activities were classified active-gross in motor requirement. In regard to social interaction; 15 were classified individual; 6 parallel; and 4 cooperative (Figure X).

Conclusion

The program was varied and well organized, with the emphasis being on active games and sports. The combination of the 1:1 ratio and group activities

Figure X

ACTIVITY ANALYSIS--Rockville, Maryland

Meaningful (4 activities)

Sensory-Interpretive		Integration - Meaningful		Expression - Realization	
Auditory	3*	Auditory-Vocal	0	Vocal	0
Visual	4	Auditory-Motor	2	Motor	4
Haptic	2	Visual-Vocal	0	Vocal-Motor	0
		Visual-Motor	3		
		Haptic-Vocal	0		
		Haptic-Motor	2		

Imitative (21 activities)

Sensory-Automatic		Integration - Automatic		Imitation	
Auditory	18	Rhythm	5	Vocal	0
Visual	20	Spatial	1	Motor	19
Haptic	6	Laterality	11	Vocal-Motor	2
		Body Image	9		
		Auditory-Vocal	1		
		Auditory-Motor	13		
		Visual-Vocal	0		
		Visual-Motor	19		
		Haptic-Vocal	0		
		Haptic-Motor	3		

Additional Observations

Attention

No.	0	2	1	22
	A	B	C	D

Sequencing

No.	13	2	2	8
	A	B	C	D

Success

No.	0	3	7	15
	A	B	C	D

Motor

Active 20 Gross 21 Quiet 5 Fine 4

Interaction

Individual 15 Parallel 6 Cooperative 4

*Each numeral represents a total of the activities utilizing each component of the model.

seems to be a constructive basis for programming. The excellent training of the volunteers appeared to contribute greatly to the outstanding effectiveness of the program. The emphasis of the camp was on motor activities on the imitative level; from this emphasis one would expect a high degree of improvement in motor skills.

Quincy, Massachusetts

General Information

Happy Acres Day Camp, Quincy, Massachusetts, is sponsored by the Quincy Park and Recreation Board under the supervision of the Director of Recreation. The camp was in operation for 7 weeks, 5 days per week, 5 hours daily, with 75 campers enrolled for the entire season. Average attendance was about 50 to 60 per day.

The campers, chronological ages 5 to 30 years, were at the educable and trainable levels and divided into 5 groups: (a) young trainables; (b) older trainables; (c) young educables; (d) and (e) older educables.

There were 85 volunteer counselors, not all in attendance every day. Counselors were allowed to select the camper with whom they would like to work. There was a 1:1 ratio with all younger campers, and a lesser ratio with the older educables, who often played team games.

The camp goals were stated to be: "To help the child grow physically, mentally, and socially in the community." The major program emphasis was on swimming, boating, trampoline, active sports, arts and crafts, and singing.

Activity Analysis

Eighteen of the 25 activities observed were classified imitative and 7 meaningful. In both classifications activities were high in vocal and auditory inputs and in motor output (Figure XI).

Twenty activities gained campers' attention, of which 16 were successfully performed. Few activities were presented sequentially. Fourteen activities

Figure XI

ACTIVITY ANALYSIS--Quincy, Massachusetts

Classification: Meaningful: 7* activities Imitative: 18 activities

Meaningful (7 activities)

Sensory-Interpretive

Auditory	7*
Visual	6
Haptic	0

Integration - Meaningful

Auditory-Vocal	1
Auditory-Motor	7
Visual-Vocal	1
Visual-Motor	5
Haptic-Vocal	0
Haptic-Motor	0

Expression - Realization

Vocal	0
Motor	6
Vocal-Motor	1

Imitative (18 activities)

Sensory-Automatic

Auditory	17
Visual	18
Haptic	4

Integration - Automatic

Rhythm	6
Spatial	0
Laterality	7
Body Image	6
Auditory-Vocal	2
Auditory-Motor	12
Visual-Vocal	0
Visual-Motor	15
Haptic-Vocal	0
Haptic-Motor	4

Imitation

Vocal	0
Motor	16
Vocal-Motor	2

Additional Observations

Attention

No.	2	3	0	20
	A	B	C	D

Sequencing

No.	20	1	0	4
	A	B	C	D

Success

No.	1	6	2	16
	A	B	C	D

Motor

Active 14 Gross 14 Quiet 11 Fine 11

Interaction

Individual 6 Parallel 15 Cooperative 4

*Each numeral represents a total of the activities utilizing each component of the model.

required active-gross and 11 quiet-fine motor activity. Social interaction types were classified: 6 individual, 15 parallel, and 4 cooperative (Figure XI).

Conclusion

Seventy-five enrolled educable and trainable retardates were given 7 weeks of camp experience in a city park. The program included boating, trampoline, swimming, active sports, arts and crafts, and singing. The older educables frequently played kick ball and baseball. Their baseball team often competed with normal organized teams in other areas of the city. This was the only camp which had an organized athletic team.

Component Totals: Comparisons

Table II (see page 29) summarizes the activities classifications at each camp, and further summarizes their component parts, providing comparitive totals for the whole of the observations. Additional observations are also summarized and totaled. Generalizations that can be made from this table are as follows:

1. Imitative activities were most frequent in each of the six camps as well as in the total for all camps. It will be noted in Table II that 40 of the total of 150 activities observed were classified meaningful, whereas 110 were classified imitative. One might think this distribution resulted from the fact that certain camps enrolled severely retarded campers who could only perform by imitation. This, however, is not the case; the individual camp analyses revealed that the camp which enrolled the most severely retarded offered nearly 1/3 of its activities within the meaningful classification.

2. Activities tended to utilize visual and auditory inputs in the greatest frequency; haptic input occured only occasionally. Table II shows auditory and visual inputs approximately equal in frequency, although varying

Table II

SUMMARY AND COMPARISON--ACTIVITY COMPONENT ANALYSIS OF SIX CAMPS

ACTIVITIES	Camps: Dayton, Ohio	Manchester, Conn.	New York, New York	Phoenix, Arizona	Rockville, Maryland	Quincy, Mass.	TOTALS
Meaningful Classification	8**	10	8	3	4	7	40
Sensory (input)							
Auditory	7	10	7	3	3	7	37
Visual	6	10	8	2	4	6	36
Haptic	3	3	0	0	2	0	8
Integration							
Auditory-Vocal	4	2	0	1	0	1	8
Auditory-Motor	6	10	4	3	2	7	32
Visual-Vocal	2	2	0	0	0	1	5
Visual-Motor	4	10	6	2	3	5	30
Haptic-Vocal	1	0	0	0	0	0	1
Haptic-Motor	3	3	0	0	2	0	8
Expression (output)							
Vocal	1	0	1	0	0	0	2
Motor	3	8	7	2	4	6	30
Vocal-Motor	4	2	0	1	0	1	8
Imitative Classification	17	15	17	22	21	18	110
Sensory (Input)							
Auditory	15	15	12	21	18	17	98
Visual	9	14	16	20	20	18	97
Haptic	1	3	5	5	6	4	24
Integration							
Rhythm	7	5	1	5	5	6	29
Spatial	0	0	0	0	1	0	1
Laterality	2	4	3	4	11	7	31
Body Image	2	4	3	4	9	6	28
Auditory-Vocal	1	3	0	2	1	2	9
Auditory-Motor	11	8	8	15	13	12	67
Visual-Vocal	1	1	0	0	0	0	2
Visual-Motor	9	11	12	18	19	15	84
Haptic-Vocal	1	0	1	0	0	0	2
Haptic-Motor	2	3	3	4	3	4	19
Imitative (Output)							
Vocal	1	0	0	0	0	0	1
Motor	9	10	15	16	19	16	85
Vocal-Motor	4	5	2	6	2	2	21
Additional Observations							
Attention*	15	22	23	22	23	20	125
Sequencing*	1	0	2	3	10	4	20
Success*	17	22	22	16	22	18	117
Motor -- Active	8	17	10	11	20	14	80
Gross	15	18	10	14	21	14	92
Quiet	17	8	15	14	5	11	70
Fine	10	7	15	11	4	11	58
Interact--Indiv.	3	6	8	2	15	6	40
Parallel	22	10	13	20	6	15	86
Cooperative	0	9	4	3	4	4	24

*Totals include only moderate and high degree of concern for the item.

**Each numeral represents a total of the activities utilizing each component of the model.

from camp to camp. This applied to both the meaningful and imitative classifications. The haptic input was the least frequent in both classifications.

3. The most frequent output components were motor rather than verbal. Table II shows that the motor components were extensively employed in both the meaningful and imitative classifications. Next in frequency were the vocal-motor components, and the lowest were the vocal components. The prevalence of motor performance rather than verbal is probably due to the traditional nature of camp programs--which primarily require motor responses. Another factor accounting for the relatively few activities involving verbal performance might arise from the speech problems of the retardate, making it difficult to program activities for vocal responses.

4. The most frequent integration components were visual-motor and auditory-motor rather than visual-vocal, auditory-vocal, haptic-vocal, and haptic-motor. As indicated in Table II, the meaningful classification made almost equal use of the auditory-motor and visual-motor components, whereas in the imitative classification visual-motor was by far the greater. Rhythm, laterality, and body image were the next most frequent components, although found in only about ¼ of the imitative activities. Visual-vocal and haptic-vocal were low in frequency because, as stated previously, there was relatively little vocal performance required in the output. The spatial relations component was the lowest; programs did not seem to plan for this component.

5. Most of the activities gained the campers' attention in varying degrees, scaled from moderate to high. Table II shows that 125 of the 150 activities fell within the above scale. Twenty-five of the total did not gain the attention of the campers or did so only to a small degree.

6. Few of the activities were sequenced instructionally in small steps which might allow for an ordered progression in skills. Only 20 of the 150 activities were concerned with sequencing to either a moderate or high degree.

Ten of these 20 were found in a single camp which stressed the physical education type of program to a high degree. The sequencing which is vital in the training for physical fitness or active sports--a tool of the effective coach--probably carried over into the camp program.

7. The predominant motor requirement was active-gross rather than quiet-fine. Table II shows approximately 2/3 of the activities falling within the active-gross category and the remainder in the quiet-fine category which might be expected in a traditional camp program.

8. Parallel play was the most frequent type of social interaction, with individual play being next in frequency, and cooperative play least frequent. Table II points out that activities were most frequently engaged in by groups, but with little interaction among the members--as is often found among nursery school age children. Cooperative interaction was found in only 24 activities. Of the 40 activities engaged in individually, 15 were found in a single camp which stressed a 1:1 counselor-camper ratio and provided a high degree of individual help.

PART III - SUGGESTIONS FOR ACTIVITY MODIFICATIONS

In observing various activities in camps for the retarded it is natural to ask the question--could the activities be modified to develop the child's higher level mental processes in addition to the physical and social skills stressed in most camp programs? The answer might naively be a hopeful affirmative expected from merely planning activities within the framework of the present theoretical models; however, this would be an oversimplification. No amount of planning for inputs, integration, and outputs will produce gains evidenced by either clinical observation or by quantitative test results unless there is an actual "reaching-into" the intellectual processes--

i.e., by first gaining the child's attention, then by sequencing instruction in small successive steps so that he can assimilate new material, and followed by many repetitions or practice.

The theoretical models, dealing with automatic and cognitive abilities, present a breakdown of activities into components from which activity modifications may be planned if program goals and/or analysis points them to be desirable or possible. The eight major findings revealed by Table II, and discussed in the section immediately preceeding, suggest a framework for modifications directed toward objectives listed below and later discussed in methods:

A. Raising the individual level of activities from the imitative to the meaningful, dealing in understanding and realization.

B. Diversifying inputs through planning activities which provide stimulation of all the senses.

C. Diversifying outputs through planning activities for vocal as well as motor performance and an integration of the two.

D. Diversifying integration through co-relating 2 and 3, above, plus activities for rhythm, spatial relations, laterality, and body image.

E. Increasing the gain of attention and attention span.

F. Developing methods of sequencing instruction in small, successive steps.

G. Diversifying motor requirements through planning activities for fine-motor as well as gross-motor performance.

H. Increasing social interaction through planning activities for cooperation.

A. Raising the Individual Level of Activities from the Imitative to the Meaningful.

Although imitative activities do promote learnings, meaningful activities, on the whole, are more effective because they demand a higher level of

intellectual performance. The usual imbalance between the two classifications is indicated in that of 150 activities observed only 40 were classified as meaningful.

Very often not much is expected of the retardate; therefore, planning is not always for his maximum growth potential. If the elements of activities are offered sequentially, first by finding out what he can do, by giving him this frequently, and then by giving him something just a little more difficult, it is possible to lead him to a higher level of successful performance. The following suggestions are given for the development of meaningful contexts starting from the imitative; these should be regarded as examples subject to expansion and much wider application.

1. Non-swimmers, getting them used to water
   a. Imitative: Simon Says--the leader shows the child and/or tells him, "Simon says put your hand in the water" and the child imitates the leader's movement.
   b. Meaningful: Simon Says--the leader tells the child but does not show him, "Simon says put your hand in the water;" the child follows the verbal instruction recognizing the meaning.
2. Teaching Swimming
   a. Imitative: The leader demonstrates movement and the child imitates it.
   b. Meaningful: The leader tells the child, "Move from here to there;" or "Swim to me;" or "Swim to the rope."
3. Flannel Board
   a. Imitative: The child copies designs or imitates the placement of pieces of flannel on the board.
   b. Meaningful: The leader places a number, such as "2," on the flannel board and the child places a like quantity on the

board, such as two circles or two stars, recognizing the meaning of the number.

B. Diversifying Inputs--Stimulation of all the Senses.

The most frequently appealed-to senses for teaching purposes are those of vision and audition. The retardate needs all the helpful stimulation which we can give him; it is suggested, therefore, that he be given haptic, olfactory, and gustatory sense training as well as the visual and auditory.

1. Visual stimulation: The leader says, "I am your mirror, do what I do," or, "I am your TV, imitate me." He gives visual cues by demonstrating a movement which the child sees and imitates.

2. Auditory stimulation

   a. The leader says, "I am your radio, do what I tell you to do." He gives auditory cues by telling the child how to move, e.g. "Put your hand on your head," or, "Walk backward."

   b. The child while blindfolded identifies items by their sound, e.g. keys, drum, etc.

3. Haptic stimulation

   a. Tactile: The child closes his eyes and an object is placed in his hand; he must find the same object in a bag containing many items, by feeling for it.

   b. Kinesthetic: The leader tells the child, "Roll on the floor, making yourself go from here to there," or "Slide on your stomach like a snake." The child experiences sensation through muscle sense.

4. Olfactory stimulation: The leader has the child smell the scent of plants, of food being cooked or heated, and of unpleasant odors such as amonia, mold, decay, etc. A game may be made by having the child identify the items by scent while blindfolded.

5. Gustatory stimulation: The program should include tasting many foods; this may be done at snack time or at "tasting time"--only a small taste of a few items such as fruits, vegetables, seeds, etc.

C. Diversifying Outputs--Vocal, Motor, and Vocal-Motor Performances.

Much can be accomplished in training for communication by planning activities for vocal, motor, and vocal-motor performance. Clinical observation and research show that the retardate has problems in verbalization and in combining vocal and motor performance; therefore, it is suggested that activities be programmed for the separation of verbal and vocal responses and then programmed for their combination.

1. Motor performance

a. Most activities encourage motor performance such as those of low-organized games and active sports; these will not be described because they will be known to the reader.

b. Pantomime: The child is shown a common item such as a comb, tooth brush, or pencil, and he pantomimes its usuage.

2. Vocal performance

a. Singing: Simple songs, taught line by line with many repetitions, and sung in a slow tempo.

b. Tell Me All About This: The child is shown a common item such as a spoon, a comb, or a book, and he tells all he can about it --name, color, what it is made of, usage.

3. Vocal-Motor performance

a. Physical exercise: As the child does the movement, he states the direction--"Up," "Down," "Side," "Front" (do not confuse this with counting, "one, two, three, four").

b. Creative dramatics: The children are told a story or make up a story and enact the various roles using both verbal and motor outputs.

D. Diversifying Integration

If the above inputs and outputs are programmed, many integrations will naturally develop--visual-motor, visual-vocal, auditory-motor, etc. The following are activities for specific integrative processes--rhythm, spatial relations, laterality, and body image.

1. Rhythm: Structured rhythmic training teaches the child divisions and groupings of units of time, and is one method of producing auditory-vocal and/or auditory-motor integrations. Because the sequencing of instructions in this training is important, it will be described in section E below.

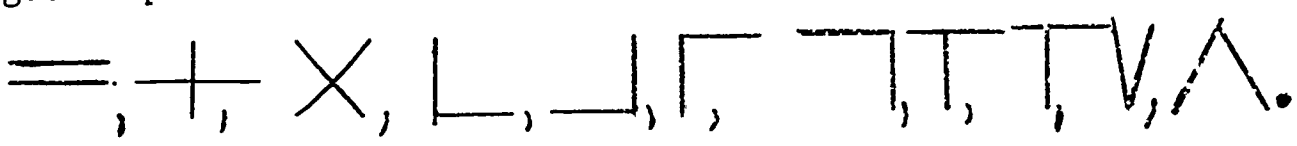
2. Spatial relations: It is important for the child to understand the space structure in which he sees objects--this proper relationship to himself and to each of the other objects in space. Because the retardate does not always obtain this relationship as a natural evolvement from his movement within his environment, he must be helped and guided in experiencing these relationships.

a. Body Movement: The leader says to the child, "Make yourself very tiny, very tall; reach up to the sky; how can you get taller? Make yourself wide; pretend you are in a tiny box, how much can you move? Move backward; move forward; how many ways can you move from here to there?" (crawl, giant steps, baby steps, hop, skip, slide, roll, etc.).

b. Object movement and drawing the object--for teaching small spatial relations, successively sequenced: Use two sticks, about 12 inches long (rhythm sticks are excellent for this purpose).

1) The leader holds sticks in the air or places them on a table or the floor in various positions; the child places

his own sticks in the same position. The following are suggested patterns:



2) The leader holds the sticks at the chalkboard, the child traces the position with his fingers, and then draws them with chalk.

3) The leader draws a pattern of sticks (without showing the actual sticks) and the child imitates; this can later become more involved using three or more sticks; it can include geometric figures. Always encourage the child to look for patterns of sticks.

Note: The progression starts with large body movement in activity "a," to the use of objects in "b. 1)," to the representation (drawing) of the object in activity "b. 2)," and finally to representation without the use of the object in "b. 3)."

3. Laterality: To teach the child discrimination between the right and the left sides of his body; activities which encourage balancing are suggested:

a. Jumping on both feet, hopping on first one foot and then the other, and skipping are activities which encourage a development of laterality.

b. Walking board, 2" x 4" x 8'; walking while balancing going forward, backward, and sidewise on the wide side first, then on the narrow. Later the board may be raised a few inches on one side so that it slants; it may also be raised about one foot above the ground. This should be done over a period of time and increased in difficulty only when the child succeeds in the previous step.

4. Body Image:

a. Movement: Large body movements and movements of individual body parts will help the child develop a mental picture of his body parts in their relationships to each other. This may be done in free movement to music, in games of imitation of movement, in physical exercise, and in dancing.

b. Representation: At the chalkboard, the leader suggests that the group draw a man; each child adds a single part of the body to the figure. When there is a distortion in the added part (arms coming from the head, legs without trunk) the group is asked if it is "right," and the child feels his own body or looks in a mirror to see placement of body part. This may be done with a clay figure also.

E. Increasing the Gain of Attention and Attention Span.

Before the child can benefit from an activity, he must pay attention. There are many reasons for lack of attention, amongst the most prevalent being the difficulty of activities, the lack of direct interest to the camper, and too rapid a pace.

1. Gaining attention: The leader must attract the children's attention before he begins an activity. He may perform a funny gesture, say an unusual word, or simply raise a hand for quiet and attention. Some retardates are so familiar with "Simon Says" that when the leader says these words, the campers follow his instructions even when not playing that game. The most frequent reason for lack of attention seems to be a too rapid pace which the children find discouraging because they cannot keep up with it. It is better to procede at a slow tempo and to use many repetitions, so that the children

have greater opportunity to experience successful performance; this success will motivate them to pay further attention.

2. Increasing Attention Span: In addition to having the children experience successful performance, activities which increase attention span may be devised. Free movement to music, stopping the music and telling the children to hold the position in which they find themselves, as if they were statues, will increase attention span if the successive intervals of standing still are gradually increased in length.

F. Sequencing Instruction in Small Successive Steps

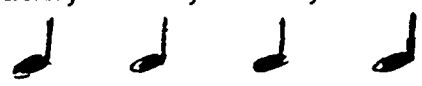
Rhythmic movement structured sequentially will be used as an example of sequencing within an activity. The children move in time to the music as follows:

1. Unilateral (movement on one side of the body at a given time)
2. Bilateral (both sides of the body at the same time or alternating)
   a. Alternate right and left hands
   b. Alternate right and left feet
   c. Both hands; both feet
   d. Right hand and left foot; left hand and right foot (cross-lateral)
3. Walk, run, skip, jump, gallop (each separately)
4. Visual cue: imitate rhythmic movement of the leader
5. Auditory cue: move to the sound of the drum, metronome, or verbal cues
6. Eurhythmic cue: children learn to say in rhythm: "walk, walk;" "run-ning, run-ning;" "a-skip, a-skip" to a corresponding drum beat, and then move while saying these. (This is also an integration of vocal and motor performance).

Eurhythmic patterns can be gradually sequenced as follows:

(The leader taps the drum as he moves with the children and says the pattern).

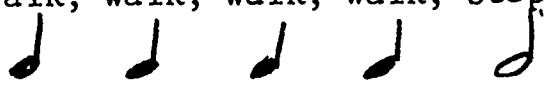
a. Walk, walk, walk, walk (repeat)



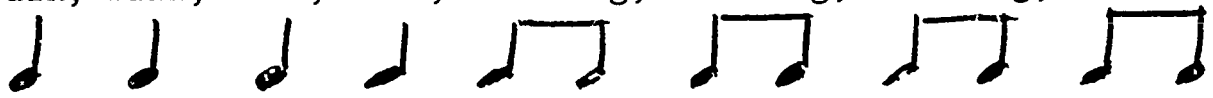
b. Run-ning, run-ning, run-ning, run-ning (repeat)

c. Walk, walk, walk, walk, stop

d. Walk, walk, walk, walk, step-hold



e. Walk, walk, walk, walk, run-ning, run-ning, run-ning, run-ning,



f. Walk, walk, step-hold, walk, walk, step-hold.

7. Randomize the movements of walk, run, skip without interruption: leader taps drum without demonstrating movement and children respond with movement.

8. Rhythmic movement with colored bands on wrists or feet to distinguish right and left. Leader demonstrates left and right movement, children imitate, thus learning directions. It helps to say, "Red-right, yellow-left." (This incorporates additional visual cues and spatial relationships of "to the right," to the left.").

9. Rhythmic movement to the right and to the left omitting color cue; use auditory cue only (children try to rmemmber color but do not see it).

Note: This sequence occurs over a period of time; it must be done slowly, and with many repetitions.

G. Diversifying Motor Requirements

The retardate often has difficulty in fine-motor coordination; therefore, activities should be planned to help in the area of fine motor coordination as well as the area of gross-motor coordination. To keep the program varied as well as to offer a less strenuous pace, it is suggested that active games be alternated with quiet activities.

1. Fine-Motor Activity:
   a. Pick up pins or bits of paper--encourages the development of fine motor coordination
   b. Finger plays--starting with finger plays involving the entire hand and later going into those for individual finger action.
2. Quiet Activities: Picking up pins, finger plays, singing, arts and crafts, a group drawing of a man are suggested for quiet activities as well as for the other purposes under which they were listed previously.

H. Increasing Social Interaction

Very frequently group activities result in parallel play rather than in cooperative play. The reasons for this are many, including difficulty, too rapid a pace for some children of the group, no apparent real need for cooperating (each one does his own part, no one expecting interaction), etc. The following are suggestions for encouraging cooperative interaction:

1. Games, throwing or rolling a ball: may be between two individuals or a group in a circle--a child in the circle names another child and rolls the ball to him (this is also of value for gaining attention).

2. Creative Dramatics: The children are told a story or make up a story and enact the various roles. This may also be applied to the case of hand puppets.

3. Dancing: Partner dances encourage cooperation but are more difficult to teach than circle dances. In partner dances the children should be taught their steps in a large circle, and then be taught the interaction with a partner.

4. Team Games: A high degree of competition should be discouraged because it has a negative effect upon cooperation, and it makes the loser feel inadequate. A team spirit of working together for a common goal, changing the members of the team frequently, and teaching a feeling of "We" can be helpful in teaching cooperation. Children of very low ability level (IQ) are usually not interested or capable in team games; therefore, they should not be expected to perform them. Children in the educable level often enjoy team games.

EXPECTANCY FROM ACTIVITY MODIFICATIONS

In planning future camp programs for the mentally retarded it is natural to ask the question--to what extent is it possible to develop the child's higher level mental processes? It is necessary to keep in mind both the planning for maximum potential growth and the child's actual limitations. Each child can be encouraged to develop toward his maximum growth potential--intellectual, social, and physical; however, growth potential must of necessity imply limitation as well as progressing ascendancy.

The educable mentally retarded child, IQ range from 50 to 80, has an implied rate of mental development approximately one-half to three-fourths that of an average child; his academic achievement at the end of his formal school career will probably have reached the second-to sixth-grade level, depending upon his mental maturation. The trainable mentally retarded child, IQ range from 25 to 50, develops at the rate of one-third to one-half that of the normal child, is trainable in learning self-care tasks, social adjustment in the home or neighborhood, and some measure of usefulness.*

In view of these developmental expectancies one would not anticipate finding camp programs resulting in intellectual gains--stated in either clinical observations or in quantitative test results--as high for trainable as for educable retardates. Nor would one expect quantitative changes from campers who have already reached their mental and chronological maturities. It would be reasonable to anticipate greater test gains from educable rather than from trainable retardates, and from younger rather than older retardates.

The theoretical models present a framework for activity modifications. It would be an oversimplification to expect intellectual growth merely from

*Kirk, S.A. Educating Exceptional Children. Boston: Houghton Mifflin Co., 1962.

following the models. In addition to theoretical planning it is necessary in working with the retardate to establish a condition of attention, to sequence instruction in small successive steps so that he can assimilate new material, and to follow this by many repetitions or much practice.

It should be reemphasized that the modifications and suggestions made above are by no means a complete listing of those pos ible for each component of the theoretical models. The program director or activity leader can use the basic models and integrate, co-relate, expand and extend the suggestions for the purpose of developing his own program.