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SEMO PROJECT HEAD START, PSYCHOLOGICAL SERVICES REPORT, 1966-67 YEAR PROGRAM.

BY- THORNTON, SAM M.

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THIS FOUR-PHASE TRANSITIONAL PSYCHOLOGICAL SERVICES PROGRAM IS PART TWO OF A THREE-PART STUDY DESIGNED TO EXAMINE AND EVALUATE CHILDREN IN HEAD START PROGRAMS IN SIX SOUTHEAST MISSOURI COUNTIES. THESE FOUR PHASES, USING 428 CHILDREN IN A 1966-1967 ACADEMIC YEAR HEAD START PROGRAM, WERE (1) CHILD OBSERVATION BY A PSYCHOLOGICAL COUNSELOR, (2) SCREENING OF CHILDREN THROUGH PSYCHOLOGICAL TESTING, (3) INDIVIDUAL EXAMINATION OF CHILDREN, AND (4) COMPLETION OF A SMALL RESEARCH PROJECT. THE SERVICE PERSONNEL VISITED TWELVE HEAD START CENTERS, WHERE THEY CONDUCTED THEIR OBSERVATION AND TESTING. THE DATA FROM THIS TESTING SHOWED THAT THE CHILDREN'S INTELLIGENCE QUOTIENT INCREASED SIGNIFICANTLY OVER THE HEAD START PROGRAM PERIOD AND THAT DISADVANTAGED CHILDREN WHO ARE INITIALLY BEHIND IN HAND-EYE MOTOR DEVELOPMENT CONTINUE TO BECOME FARTHER BEHIND. THE RESEARCH PROJECT WAS CREATED TO TEST THE EFFECT OF FROSTIG REMEDIAL MATERIALS. AN EXPERIMENTAL GROUP WAS TAUGHT BY THE FROSTIG METHOD, A METHOD KEYED TO VISUAL PERCEPTION DEVELOPMENT. A CONTROL GROUP RECEIVED THE REGULAR HEAD START PROGRAM. UPON ANALYSIS OF PRETESTS AND POSTTESTS, A SIGNIFICANT DIFFERENCE WAS FOUND BETWEEN THE TWO GROUPS, WITH THE FROSTIG GROUP PROGRESSING AN AVERAGE OF 18 1/2 MONTHS DURING THE FIRST SEMESTER AND THE CONTROL GROUP PROGRESSING LESS THAN 1 MONTH. (WD)

SEMO

Project Head Start

Psychological Services Report
1966-67 Year Program

SAM THORNTON

November 1967

TO: Mike Cooper, Director, Head Start, SEMO

FROM: Sam M. Thornton, Psychological Services

RE: Report of Service, 1966-67 year program

Attached please find report of the psychological services completed for the 1966-67 program. Note the program is designated as transitional between the Head Start program immediately preceding and the summer program to follow.

The Director of Psychological Services desires to commend to the Head Start Director, the contribution of all who participated in the program. Special reference is made to G. Robert Williams, who served as the Chief Psychological Counselor and who supervised the day to day operation of the program.

Recognition is extended to Earl W. Morris and Edward Smith, who critically read an early draft of the report, and to Mildred Caldwell who produced the report in its final form.*

Sam Thornton

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*Earl W. Morris, Ph.D., Assistant Director for CMREL, St. Ann, Mo.

Edward E. Smith, M.A., Director, TEG-JAPS, Ava, Ill.

Mildred Caldwell, Adm. Asst., Richland County Psy. Serv., Olney, Ill.

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1966-67 YEAR PROGRAM

BACKGROUND INFORMATION

The SEMO Delta Area Head Start Program for the academic 1966-67 year covered six southeast Missouri counties within which were twelve centers providing opportunity for four hundred and twenty-eight pre-school children.

The program of this report covered essentially the same area as an earlier program but was reduced in size because of differences in funding and problems of staffing. Budgetary considerations also tended to decrease the portion of children from "higher income families."

The initial thrust in the Delta with regard for Head Start Psychological Services began with the 1966 summer program sponsored by the Delta Area Economic Opportunity Corporation (DAEOC), Portageville, Missouri, Lloyd Phillips, Director. The summer program was centered around the thesis that one purpose of Head Start is to--

> "give children from deprived backgrounds the experiential matrice essential for coping with the initial school requirement. In making such a statement it was implied that children from deprived backgrounds come to school before they have reached 'readiness level.' What constitutes 'readiness level'? School readiness encompasses many factors, among which are the physical, the mental, the sensory, and the social development. By physical development was meant factors of size, strength, and coordination. By mental development was meant speed of learning, retention, and the capability to apply knowledge advantageously in situations of novel and of practical portent. Sensory development has to do with the ability to recognize stimuli from each of and from combinations of the five senses. Social development

relates to the child's ability to exist in a peopled world with some satisfaction for the self and without great irritation to others. Therefore, the relative state of faculty development as well as the degree of their interrelatedness determines the efficiency (and readiness) of the child."(1)

In summary then, the summer 1966 Psychological Services were primarily aimed for obtaining readiness descriptions of the children enrolled in the program. The results of that early research were reported following the completion of the summer program.(2)

DESIGN OF THE PROGRAM

The 1966-67 year program did not concern itself primarily with the identification of characteristics already established for Delta children by the previous summer's research. Rather, the present design was conceived as a transition between the earlier group-field method employed in the summer of 1966 and the projected intensive service program to the individual planned to follow in the summer of 1967.

Thus, the design of this writing was for a four phase transitional psychological services program.

(Phase One) Phase one would include observation of children, or of a child, within the Head Start classroom, in and about the school and on the playground, during field trips or special opportunity projects, and the like. This observation would afford the psychological counselor not only an opportunity to obtain insight into the behavior of children, but also permit a common ground for talking with the teacher and advising her as to means of dealing with her children or with an individual child. Notes of observation were kept in paragraph form for reporting purposes.

(Phase Two) The second phase of the psychological services program was the screening. The screening included the Draw-A-Person Test, the Geometric Forms, the Frostig Developmental Test of Visual Perception and the Behavioral Rating Scale. With the exception of the

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[1] Thornton, S.M., DAEOC Project Head Start, Report of Research, Summer, 1966, Portageville, Mo.

[2] op cit

Frostig, to be discussed later, screening devices and their application were discussed in the report of summer research to which previous reference has been made.

(Phase Three) The third phase of the program had to do with the individual examination of children. Individual examinations were conceived as of three levels, referred to as Class A, Class B or Class C.

Class A: Class A examinations were concerned with the children for whom more definitive information was needed as identified by the screening procedure, by a teacher or by other Head Start personnel, and included such devices as the Columbia Mental Maturity Scale, the Quick Test, the Finish a Story Test, etc. The Quick Test provides a measurement of a child's association between an auditory symbol and a pictured object. Other things being equal, the Quick may be regarded as an estimate of verbal knowledge.(3) The Columbia Mental Maturity Scale is a device utilizing principally the processes of visual organization and perception, and the making of inferences therefrom.(4) The FAST is a device that permits what may be described as projective responses from which inferences concerning the child's view of himself, a view of significant other persons and of the world about him may be drawn.(5) While the administration of the device is simple, the validity of inferences derived are obviously dependent upon the interpreter's acquaintance with personality theory and the richness of his experience with children.

Class B: Class B individual examinations represented a situation where more sophisticated instruments were employed, such as the Stanford-Binet Intelligence Scale(6), the Wechsler Intelligence Scale for Children(7), the Merrill

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[3]Ammons, R.B., & Ammons, C.H., The Quick Test, Montana State Univ., Missoula, Mont. 1962.

[4]Burgemeister, B.B., Blum, L.H., & Lorge, I., Columbia Mental Maturity Scale, World Book Co., Yonkers-On-Hudson, N.Y.

[5]Finish A Story Test, Wichita Guidance Center, 3422 E. Douglas St., Wichita, Kansas.

[6]Terman, L.M., & Merrill, M.A., Stanford-Binet Intelligence Scale, Third Rev., Form L-M., Houghton Mifflin Co., Boston, Mass. 1960.

[7]Wechsler, D., Wechsler Intelligence Scale for Children, The Psychological Corp., New York 17, N.Y.

Palmer Scale of Mental Tests(8), the Illinois Test of Psycholinguistic Abilities(9), and other devices related to psychoeducational diagnosis.

Class C: And, finally, the Class C type of examination represented a situation where clinical information was required about the child, and/or a more penetrating study of the child's processes for knowledge acquisition and as to how he experiences the world.

(Phase Four) One small research project was completed having to do with the evaluation of a training program aimed to enhance the development of the processes of visual perception.

Personnel: The program was under the general direction of a qualified Head Start psychologist as defined in the proposed guidelines evolved from the November 1966, Head Start Conference, Boulder, Colorado (copies of proposed guidelines may be obtained from OEO, Region VI, Kansas City, Missouri). Day to day responsibility for the program was assumed by a qualified psychological counselor, who was certified by the State of Missouri to make individual examinations of public school children. The psychological counselor aides were individuals with a background in work with primary children--as teacher, social worker or related profession, and with some coursework in child development, tests and measurements, etc., who with additional in-service-training helped implement the program under the immediate supervision of the psychological counselor as required by the Director of the service.

In-Service-Training: It was recognized that the psychological counselor and the psychological counselor aides might require training with certain of the tests and devices to be employed in the program, with which familiarity would not necessarily be enjoyed in the usual public school setting.

The psychological counselor and the psychological counselor aides were provided with fifty-two clock hours of in-service-training,

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[8]Stutsman, R., The Merrill-Palmer Scale of Mental Test, Harcourt, Brace & World, Inc., New York.

[9]McCarthy, J.J., & Kirk, S.A., Illinois Test of Psycholinguistic Abilities, Institute for Research on Exceptional Children, U. of Ill., Urbana, Ill.

equivalent to about one-quarter university level work. The following tests and devices were covered during the in-service-training: the Columbia Mental Maturity Scale, the Quick Test, the Wechsler Intelligence Scale for Children (reviewed briefly), the Frostig Developmental Test of Visual Perception, the Illinois Test of Psycholinguistic Abilities, and the Finish A Story Test. With the exception of the Frostig and the ITPA, the other devices have been described elsewhere.

Instructional conditions were close to ideal. It was possible for the trainees to observe and hear, without being seen or heard, which permitted not only the trainees to observe proper procedure, but also afforded the occasion for the instructor to observe the trainees, thus permitting comments appropriate to the development of the trainees' techniques.

The Frostig Developmental Test of Visual Perception can be utilized either individually or in group administration. The Frostig was introduced with three individual demonstrations for the trainees to observe. Following these demonstrations, the scoring of the Frostig was gone over in detail. Each of the trainees had the opportunity to administer the test, under supervision, and to go over their results with the instructor. A total of twenty-eight administrations were involved. The data were, additionally, compiled into a table form, and the general results discussed with specific reference to advising teachers regarding unique emphasis a given child might need.

The ITPA is a method of classifying language processes into nine functional areas. The device is individually administered. The trainees observed three demonstrations and the scoring of each. Results, and the implications of the results, were discussed at length within the framework of the theoretical orientation of the device. Each trainee made several administrations.

A similar procedure was followed with each of the other listed devices, with the exception of the Binet and Wechsler Scales, with which personnel who would be using them had already demonstrated administrative skill prior to the in-service-training.

SUMMARY OF ACTIVITIES

During the time of the year Head Start program, personnel of this service made slightly over one hundred and forty visits to the

twelve centers. Of these visits, about twenty were for gathering data, including testing, fifty for observation of given children, fifty to consult at the request of a teacher, and slightly more than twenty for general program or specific project observation.

All children enrolled in Head Start, and in attendance the day of administration, were given a screening examination consisting of the DAP, Geometric Forms, and the Frostig Developmental Test of Visual Perception. Additionally, the Behavioral Rating Scale was completed for each child by the teacher(s). On the basis of the screening, four hundred and twenty-eight brief reports were written for teachers, identifying the child, his chronological age, the estimated Mental Age, an estimate of visual readiness, and a statement of apparent social maturity. These brief reports had a

TABLE I

Tests Administered
Head Start 1966-67

Draw-A-Person	730	
Geometric Forms	315	
Behavioral Rating Scale	423	
Frostig	417	
	1885	
Quick Test	62	
Columbia Mental Maturity Scale	61	
Finish A Story Test	48	
	171	
Stanford-Binet	24	
Survey of Development	11	
Illinois Test of Psycholinguistic Abilities	20	
Frostig (post test)	28	
	83	
		2139

number of advantages, among which were to permit early planning for meeting the child's readiness needs, to permit special and appropriate emphasis for a given child, and to help identify children for more detailed study.

From the screening examination and from observation, sixty children were tentatively identified for further study. These children were seen individually for a Class A Examination. Thirty-one children were referred for psychoeducational diagnosis, afforded by the Class B examination. Of these thirty-one children referred for Class B examination, five were placed in a special class for exceptional children; thirteen were returned to their program with recommendation for the teacher; and thirteen were referred for intensive child guidance study. Table I shows tests utilized for the three classes of examination.

Psychological services personnel expressed the opinion that they were totally accepted within each of the centers, and that the visits seemed to generate marked interest in the psychological services program. Service personnel also expressed some trepidation with reference to the teachers' confidence for their opinion, greater than they, the psychological counselors, felt to be justified.

From the teacher-counselor consultations, the major concern for teachers appeared to be the socially and/or linguistically isolate child. Eating problems were the second most frequent topic; dealing with problems of toilet training behaviors ranked third. The consultations, in addition to dealing with specific topics, also provided what might be described as cathartic outlets for teachers on problems of classroom management, availability of materials, curriculum planning; and teacher-child, teacher-teacher, teacher-director, and teacher-parent interactions.

Psychological services personnel conducted, or took part in, twenty center in-service-training periods, and in three area in-service-training programs during the project.

REVIEW OF DATA

Chronological Age: Four hundred twenty-eight children were in the year program. In the beginning the Mean age was found to represent 62.9 months, or five years, three months. As a group,

the children in the year project were five months younger than the summer group just preceding them.(10)

Intelligence (DAP): Four hundred eighteen children completed the figure drawings, pre test, and three hundred twelve children completed the procedure, post test. Pre testing for this and other devices was completed in the middle of February; post testing completed July 31; elapsed time five and one-half months. The rationale and scoring of the figure drawing technique has been described in the summer 1966 report.(11)

TABLE II

Year & Summer Projects--DAP, Pre and Post Test

		Pre	Post
Year	N	418	312
	M	90.15	95.50
	σ	16.53	16.64
Summer '66*	N	1278	804
	M	95.50	96.10
	σ	19.40	19.57

*from report of that date.

Reference to Table II will show essential data. It may be observed that the initial intelligence rating is significantly below the group Mean for the summer project previously reported ($t = 5.63$). From the year program pre testing (Mean 90.15) to post testing (Mean 95.50) five and one-half months later, a gain of 4.35 points may be observed, significant at the .001 level ($t = 4.43$). It is clear

[10] op cit, Thornton, p 2.

[11] op cit, Thornton, pp 3-8.

a significant change has occurred. Moreover, when the summer post testing (Mean 96.10) is compared to the year program post testing, no significant difference was found to exist (t = 0.517)!

Your attention is directed to the observation that the children of the present program, while appearing initially to be less advantaged than the children of the previous summer's program, none the less, at the end of the project had caught up and were, indeed, performing at a statistically equivalent level.

These data may be interpreted to support the hypothesis that the lower one goes on a socio-economic scale, the more, low IQ scores are observed. And, at the same time, the greater the proportional response produced when opportunity is provided.(12) The data from the summer program previously cited, as well as the data obtained from the present program, appear to clearly demonstrate that Head Start, as conceived in the Delta, serves to afford favor for disadvantaged children on the variable associated with intellectual activity.

Behavioral Rating Scale: The teacher of each class, within the Head Start program, completed for each of her children a Behavioral Rating Scale (N = 424). The scale was described in the report of research, summer 1966.(13) The primary purpose of the scale is to quickly aid in the identification of children in need of special help. Statistically, the scale appearsto well serve this purpose. From Table III pertinent data may be observed.

Generally, a child ranking in the lower 25% of the group would be suspect; poor adjustment would be suggested by the lowest 10%; and, certainly the bottom 2% would likely require immediate attention. Table III shows the children, as rated, distribute in a way very close to prediction based upon a theoretically projected curve. That is, children with ratings 53 or below, should most certainly be referred for clinical examination; children whose ratings fall between 53.25 and 62, should likely be referred for clinical examination; and, children with ratings between 62.2 and 79, are at best suspect. In terms of number, respectively we have 12, 29, 68, or a total of one hundred and twenty-nine children.

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[12] op cit, Thornton, pp 6-7.

[13] op cit, Thornton, p 10.

TABLE III

Distribution of Children Upon Behavioral Rating Scale

	P.E. Dist.	Cum. % theoretical	Raw Score	Cum. % found	Cum. N.
	2.2%				
+3 P.E.		97.80	130.95		
	6.7%				424
+2 P.E.		91.10	118.00	89.62	
	16.1%				380
+1 P.E.		75.00	105.05	74.05	
	25.0%				314
Mean		50.00	92.10	50.00	
	25.0%				212
-1 P.E.		25.00	79.15	25.70	
	16.1%				10
-2 P.E.		8.90	62.20	9.66	
	6.7%				41
-3 P.E.		2.20	53.25	2.83	
	2.2%				12
	100 %				424

M = 92:10

Sd. = 19.21

Geometric Forms: Geometric form drawings, which lend for estimate of hand-eye motor development, and by extension, visual perception, were obtained from four hundred twenty children pre test, and three hundred fifteen children post test. Based on a chronological age of 5.24 years and the IQ 90.15, it would be predicted that a geometric form group Mean of 4.8 years would be obtained. The obtained geometric form, pre test Mean was found to be 4.16 years, and the post test mean 4.35 years; both figures below the initial prediction. The data at face value would appear to suggest that some improvement (1.6 months) in geometric form reproduction had occurred during the five and one-half months elapsed time period. The important fact here is that our post test Mean prediction would be based upon a chronological age of 5.7 years, and the IQ 95.5, rather than the figures used for pre test prediction, and would result to an expectancy of 5.4 years. Thus, it would appear that the children are not only below expectancy at the beginning of a Head Start program, but, in fact, continue to lag more and more behind.

Frostig Data: Our present geometric form data, as well as that obtained from the summer 1966 group, certainly raise real question, not only about eye-motor development (visual perception), but also about curriculum needs in the area. Recognizing that the reproduction of geometric forms is at best a crude measure, the need for a more sophisticated instrument was evident.

Why this concern with perception? The recognition that the "mind at birth is a blank sheet," so to speak, and that there is "nothing in the intellect that is not somehow first in the senses," goes back at least as far as Aristotle. Perceptual development is basic to all learning. Indeed, a potentially great mind will never actualize potential if the five sensory avenues for information are impaired or denied. Generally, it is recognized that normal sensory development is, in part, a function of stimulation and of opportunity. It is likely, culturally disadvantaged children are also perceptually deprived. Our data to this point strongly support the hypothesis.

In the human, the sensory processes of vision and of audition are the most important processes for survival in our literate world. The Frostig Program for the Development of Visual Perception is the first of its kind to be offered, and it would appear to present a completely new, and highly important, subject for the curriculum.(14) The test authors also offer a Test of Visual Perception which, in addition to an overall rating, provides specific information with

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[14]Frostig, M., Frostig Program for the Development of Visual Perception, Follett Publishing Co., Chicago, Ill.

regard for what is described as five vital visual perceptual skills. These vital visual perceptual skills are described as follows:

(a) Visual-Motor Coordination--this has to do with the ability to develop printing, writing and drawing skills;

(b) Figure-Ground Perception--this represents the ability to identify relevant stimuli from distracting backgrounds;

(c) Perceptual Constancy--this has to do with recognition and identification of forms, regardless of difference in size, color, texture, position, background and angle of viewing;

(d) Perception of Position in Space--this ability relates to reading and writing skills in such areas as distinguishing "3" from "E";

(e) Perception of Spatial Relationships--this deals with the ability to perceive positional relationships between various objects or points of reference.

The Frostig Developmental Test of Visual Perception was administered to four hundred and seventeen children. Table IV contains results by subtest and for the total test. Again, using the Mean CA,

TABLE IV

Data, Frostig Test of Visual Development
N = 417

Test	Obtained (mos)	s.d.	Predicted (mos)	Difference (mos)
I (a)	52.5	12.00	56.7	-4.2
II (b)	50.6	16.09	56.7	-6.1
III (c)	49.4	15.29	56.7	-7.3
IV (d)	54.8	13.78	56.7	-1.9
V (e)	54.8	10.34	56.7	-1.9
Total	52.35	10.44	56.7	-4.4

five years, three months, and the IQ 90, it would be predicted the Mean Frostig rating would represent 56.7 months. We observe a rating of 52.35 months, a figure approximately 4.4 months below expectancy, which suggests a definite visual lag. It should be noted that the Frostig rating approximates the Geometric Form rating, an observation that supports the latter as a screening device, where time, money, and trained personnel are of prime consideration. Again, with reference to Table IV, it should be noted that figure-ground (b) and perceptual constancy (c) represent the areas of greatest retardation, with visual motor coordination (a) mildly impaired, and with position in space (d) and spatial relations (e) the least inefficient.

Reference to Table V will demonstrate that the subtests of the Frostig, for this study, appear to be sufficiently different so as to justify some confidence in the relative uniqueness for each.

TABLE V

Critical Frostig Ratios, Full Scale & Subtest Combinations

	1	2	3	4	5
F. Sc.	0.19 ns	1.89 ns	3.28**	2.90**	3.43**
5	3.00**	4.53**	6.04**	0.00 ns	
4	2.45*	4.08**	5.41**		
3	3.29**	1.12 ns			
2	1.95 ns				

* >.05
** >.01

It may be seen that position in space and spatial relations differentiate from the Full Scale and from all other subtests, if not from each other. Form constancy appears relatively independent of the Full Scale, and all subtests except figure-ground. Eye-motor coordination differentiates from form constancy, position in space and spatial relations, but not figure ground and the Full Scale. Figure ground differentiates least well, being significantly different from only position in space and spatial relations.

(Frostig Experiment) From one of the centers, twenty-five children were initially drawn by lot to serve as an experimental group, in a project whose purpose was to observe the effect of Frostig remedial materials. From the balance of the center's children, an attempt was made to match each selected child with a counterpart on the dimensions of perceptual age (PA) and chronological age (CA). Fourteen relatively equivalent pairs were identified. Mental ability, economic or social factors, were not considered, since the subject of the study was the effect of Frostig material and the Frostig program upon children of similar perceptual ability and of comparable age.

The fourteen children initially identified by lot were grouped into a Head Start class which utilized the Frostig program. The matched counters were reassigned to the other two classes in the center which utilized the regular Head Start curriculum. Table VI will show relevant pre and post test statistics.

TABLE VI

Frostig Experimental and Control Groups
Pre and Post Test Data

	Pre Test			Post Test		
	Exp.	Cont.		Exp.	Cont.	
N	14	14		14	14	
CA	70.71	69.71	t = .5954	75.71	74.71	
PA	78.21	77.71	t = .0103	96.71	78.64	t = 3.3656 $>$ .01

It will be observed from Table VI pre test, there was no significant difference between the groups. The study was carried out over a five and one-half month period. Post tests results show a strikingly significant gain for the experimental group afforded the Frostig materials and program. The control group improved, disappointingly so, but none the less at a rate fairly approximate to that observed with the geometric forms, earlier reported in this paper. The experimental group progressed a measured arithmetical total of eighteen and one-half months over the time of the study. This is truly an apparent major gain.

At face value, these results would suggest the Frostig program become, immediately, a vital part of the Head Start curriculum, for any delay would only serve to further deprive these children.

Realistically, certain cautions appear indicated. One caution has to do with the Subjects age, which even though unintentional was not representative for Delta Head Start children as a group. The research children average five years and ten months of age, while the Delta Head Start children, as a whole, average some seven months younger. Assuming, too, there is some relationship between PA and MA, the children of this study, on the basis of PA to CA, appear to possibly be above the Mean intelligence rating reported earlier for Delta children, and, therefore, are not representative. This may not be a serious objection because we have previously shown a relationship between economic level and IQ scores to gross improvement through the Head Start experience. That is, the lower one goes on a socio-economic scale, the lower the initial group IQ rating, and the greater the proportional IQ point gain with opportunity.(15) Hence, it is possible that total population results would be just as impressive. Another caution deals with the "Hawthorne effect." There is no way to evaluate the "effect", except over a period of time. And, while undoubtedly some of "it" is present, it does seem unlikely that the absence of same would have seriously changed outcomes. Finally, a fourth caution, and the most telling one. The Frostig test, with its component five subtests, was followed by materials having identity with the subtest components. Strictly speaking, we have demonstrated that practice with materials, similar to those utilized in the Frostig test, improves performance with the Frostig test. Whether or not there is a real and substantial carry-over into reading, writing, spelling and arithmetic skills, as the author and publisher claim, was not a subject of this research and was not demonstrated. Carry-over value is an imperative area for investigation.

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[15] op cit, Thornton, p 9.

SUMMARY

1. From the initial screening, a brief report was written for each child--total 428.

2. A total of 2139 tests, devices, and measures were completed during the program.

3. At the start of the program, the childrens' Mean age was found to be five years, three months.

4. Pre test, the Mean IQ 90 was found; post test, the Mean IQ 95.5 was recorded. Gain is statistically significant.

5. Twelve serious, twenty-nine poor, and sixty-eight moderate, potential social adjustment problem children were identified.

6. Reproduction of geometric forms, below age level at beginning, and continued so through to end of program.

7. Frostig Developmental Test of Visual Perception confirmed geometric form data.

8. A class of children, having the advantage of the Frostig Program for the Development of Visual Perception (experimental group), showed marked and significant gain when compared with a matched group (CA and PA) of children taking only the regular Head Start program.

-OEO
PS

FROM:

ERIC FACILITY
SUITE 601
1735 EYE STREET, N W
WASHINGTON, D.C. 20006