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ABSTRACT

The purpose of the study was to determine what factors affect success in passing the General Education Development (GED) exam. Using data gathered between 1960 and 1972 from 200 successful GED students at the Mattoon Area Adult Education Center, Ill., the authors developed frequency distribution charts to characterize the students and scattergrams to reveal correlations among: age, hours spent in GED classes, GED scores, arithmetic computation, Stanford Arithmetic Reasoning scores, and language usage. The population was primarily midwestern, rural, and white and was classified as public aid recipient or non-public aid trainee. Findings indicated that age is not relevant to GED success, and there were high correlations between language usage and reading, reading and arithmetic reasoning, and reading and arithmetic computation. (MDW)

ILLINOIS OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION

(Division of Adult Education)

In cooperatioh with

UNITED STATES OFFICE OF EDUCATION

(Region V Staff Development Committee)

High School Equivalency

(GED)

Research Project

E.D. DOWLING

P.L. LASH

STATISTICAL TABLE ANALYSIS

(200)

SUCCESSFUL GED STUDENTS

Cooperating Agencies

MATTOON AREA ADULT EDUCATION CENTER

MATTOON COMMUNITY SCHOOL DIST. #2

ILLINOIS DEPARTMENT OF PUBLIC AID

Intended for in-service training of Adult Education programs for use in staff development with teachers and counselors.

ABOUT THE AUTHORS

Mrs. Patricia Lash and Mr. Ed Dowling have each had extremely diverse experiences in their respective areas of specialization in adult education, Mrs. Lash primarily as a teacher in the General Education Developmental (GED) program and Mr. Dowling as a counselor and administrator. They have worked with adult students representing all walks of life from the Public Aid recipient in basic education to the college graduate who is attending for enrichment purposes.

Mrs. Lash is completing her eighth year as GED instructor in the full-time day program of the Mattoon Center in a self-contained, comprehensive one room operation. She has also taught for five years in the evening program with specialization in the areas of English and math. She is well versed in the use of both hardware and software and has used the learning center extensively as a supplement to her teaching.

She has also taken leading roles as both an organizer and participant in a variety of workshops, institutes and in-service training programs at the Federal, State, and local levels.

She was selected as "Teacher of the Year" for the 1972-73 school year by the Public Adult & Continuing Educators Association of Illinois (PACE).

Mrs. Lash holds her BS degree from Indiana State University in Terre Haute, Indiana and her MS Ed. in Guidance and Counseling from Eastern Illinois University, Charleston, Illinois. She has also completed work on the "Specialist in Guidance" at Eastern Illinois.

Mr. Dowling is completing his sixth year as counselor and admissions officer at the Mattoon Center and has served as Director of the Evening Program for three years. In addition, he has periodically assumed additional duties as "acting" director of the day program. He also taught one semester of mathmetics at the GED level in the evening program.

He is extremely interested in, and talented in, research in adult education and has compiled several studies that have been utilized throughout the network of adult education programs in Illinois.

Mr. Dowling was selected as "Young Educator of the Year" by the Mattoon, Illinois, Jaycees for the 1971-72 school year.

He, too, like Mrs. Lash, has been quite active both as an organizer and participant in workshops, institutes and in-service training programs at the Federal, State, and local levels.

Mr. Dowling earned his BS and MS Ed. in Guidance and Counseling from Eastern Illinois University, Charleston, Illinois, and has also earned the "Specialist In Guidance" from the same University.

H. A. Sherline,
Director
Mattoon Area Adult Education Center

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INTRODUCTION

The prime purpose of this study was to determine what factors are relevant or irrelevant for passing the General Education Development (GED) exam. It was also initiated to assist the authors and others who may be interested in determining what factors play an important role in helping the adult education student. An attempt is made here to determine what factors are directly or indirectly related. If there appears to be no correlation between factors, one will assume the factors have little bearing on success. In such cases we may dispel old beliefs which is in itself positive information.

The following data have been gathered over the past four years from 1960 to 1972 on 200 successful GED students. In many instances there was information missing and as a result sub-totals will not add to totals.

In the enclosed sample the reader will find predominant midwestern, rural, white students. These students have attended in either the day or the night program at MAAEC and they may be classified as either Public Aid recipients or non-Public Aid trainees.

These students were enrolled in the Mattoon Area Adult Education Center in Mattoon, Illinois. This school is located in east-central Illinois approximately 200 miles south of Chicago, 150 miles east of St. Louis, and 150 miles west of Indianapolis. All students within this program of study were enrolled in self-contained classrooms without departmentalization. A Learning Center was continually available to students and it was used individually and for groups of students' individual needs.

To research the project frequency charts were developed. Also an attempt to develop inter-correlations between sub-topics. Our purpose is to seek out correlations based on sub-topic information and to use this information to further our understanding of students' needs required in passing the GED exam.

Frequency distribution charts and scattergrams are provided to allow visual plus mathematical representation of the results. Totals are given by categories as well as by sub-classification totals in order to illustrate comparisons between sexes and student classifications. Obviously, the sub-classifications will not provide the accuracy of totals, but they do allow comparative tendencies.

As one reviews the enclosed frequency distribution charts, he or she should note the peaks and valleys as they relate to the various classifications such as age, sex, grade scores, etc. Also a reader might well think of various frequency charts as they inter-relate to one another.

Since we as adult educators do not have many answers to cause and effect relationships, these charts and graphs were developed. It would be well for each reader to speculate as to these relationships.

The data contained within this handbook consists of:

1. Student # (names were removed to conceal student's identity)
2. Classification (PA - Public Aid) (N-PA - Non-Public Aid)
3. Sex
4. Age of student entering the program
5. Last grade of public school completed by student upon entering program
6. Initial SRA Reading Raw Scores
7. Initial Paragraph Meaning Raw Scores on the Stanford Achievement Test Advanced battery Forms W & Y (Grade scores are interpolations between the two batteries)
8. Initial Arithmetic Computation Raw Scores on the Stanford Achievement Test Advanced battery Forms W & Y (Grade scores interpolated as in #7)
9. Initial Arithmetic Application Raw Scores (listed as Reasoning) on the Stanford Achievement Test Advanced battery Forms W & Y (Grade scores interpolated as in #7)
*10. Standard scores achieved by students passing the GED exam
11. Number of hours spent in classroom by students prior to passing GED exam
12. Initial Language Usage Raw Scores (same batteries & methods as in #7 above)

* These scores are taken from several different forms of the GED exam and not one specific form.

Patricia Lash
Instructor

Edward Dowling
Counselor

	Class	Sex	Age	Gr. Comp.	SRA	Para. Mean.	Ari. Comp.	Ari. Reas.	GED	Hrs.
1	N-PA	F	20	10	75	37	23	17	236	74
2	N-PA	M	21	10	81	46	16	32	226	46
3	N-PA	F	47	8	75	10	13	36	241	72
4	N-PA	F	43	9	86	53	34	34	284	48
5	N-PA	F	27	11	--	16	19	13	227	30
6	N-PA	F	35	--	--	17	12	15	227	30
7	N-PA	F	40	8	86	54	28	20	301	80
8	PA	F	36	8	74	36	25	17	225	222
9	N-PA	F	50	8	78	40	25	21	250	178
10	N-PA	M	48	8	72	46	16	18	231	62
11	PA	F	45	11	89	50	25	18	266	246
12	N-PA	M	20	11	74	29	11	13	225	22
13	N-PA	F	28	11	75	26	7	4	270	236
14	PA	F	34	10	67	35	15	9	226	496
15	PA	M	38	8	81	43	31	17	230	112
16	N-PA	F	27	10	84	35	27	22	226	68
17	N-PA	F	21	8	81	33	24	20	239	76
18	N-PA	M	23	--	75	27	30	15	235	144
19	N-PA	M	23	10	76	20	36	36	225	50
20	PA	F	19	9	75	44	32	36	226	280
21	N-PA	M	22	--	41	11	10	11	277	16
22	N-PA	F	18	10	82	--	36	24	262	6
23	N-PA	F	20	10	74	26	28	16	227	388
24	PA	F	30	11	71	22	12	10	225	250
25	N-PA	F	44	8	--	38	10	15	241	18
26	N-PA	F	47	8	--	34	24	24	228	46
27	PA	F	24	11	82	48	13	17	251	102
28	N-PA	M	48	8	61	15	27	22	225	302
29	N-PA	F	32	8	78	--	17	16	292	170

	Class	Sex	Age	Gr. Comp.	SRA	Para. Mean.	Ari. Comp.	Ari. Reas.	GED	Hrs.
30	N-PA	F	29	9	83	57	34	23	255	144
31	N-PA	F	40	9	73	30	16	16	226	74
32	N-PA	F	23	10	--	31	16	20	257	18
33	N-PA	F	30	10	77	23	37	17	230	32
34	N-PA	F	24	10	--	39	14	15	227	38
35	N-PA	M	38	8	--	22	18	12	226	44
36	N-PA	F	60	9	77	18	5	24	228	332
37	N-PA	M	40	8	--	47	20	21	243	36
38	N-PA	F	38	11	80	--	23	16	271	32
39	N-PA	F	23	10	74	--	18	24	225	10
40	PA	F	22	10	84	43	24	19	247	52
41	N-PA	M	19	10	80	43	31	28	235	16
42	PA	F	30	10	73	38	26	14	226	120
43	N-PA	F	27	10	76	38	10	15	236	16
44	N-PA	F	29	10	--	44	20	19	255	44
45	N-PA	F	21	11	--	17	16	21	225	42
46	N-PA	F	23	9	82	42	22	21	252	28
47	N-PA	M	71	8	86	--	22	22	296	28
48	N-PA	M	42	10	--	47	10	19	236	16
49	PA	F	19	11	74	39	31	26	227	68
50	N-PA	F	36	8	82	29	19	23	253	20
51	N-PA	M	39	8	80	41	26	25	261	22
52	PA	M	18	10	71	45	24	12	226	142
53	N-PA	M	27	11	--	40	18	24	257	50
54	N-PA	F	35	8	66	--	18	6	231	80
55	PA	F	20	--	85	56	32	22	295	42
56	PA	F	47	11	64	28	5	16	230	178
57	N-PA	F	33	11	--	41	17	14	238	84
	N-PA	F	45	8	--	43	24	17	238	34

	Class	Sex	Age	Gr. Comp.	SRA	Para. Mean.	Ari. Comp.	Ari. Reas.	GED	Hrs.
59	N-PA	M	39	8	79	39	22	23	254	44
60	PA	F	27	9	86	46	26	18	270	102
61	N-PA	F	30	11	87	30	29	9	267	40
62	PA	F	34	11	77	18	18	17	226	104
63	N-PA	F	53	8	80	--	16	16	260	20
64	N-PA	F	40	11	84	51	16	15	277	108
65	N-PA	F	33	8	--	41	24	16	285	20
66	N-PA	M	40	9	83	36	21	20	242	54
67	N-PA	F	38	8	78	47	14	21	248	372
68	N-PA	F	30	10	83	40	22	13	247	40
69	N-PA	F	42	9	71	--	18	11	227	26
70	N-PA	F	43	10	76	50	27	16	230	108
71	N-PA	M	21	8	81	44	20	17	237	28
72	N-PA	F	47	8	65	10	9	10	225	72
73	N-PA	F	32	10	69	30	7	11	226	34
74	N-PA	M	36	8	79	51	17	26	225	28
75	PA	F	20	11	--	42	17	8	227	82
76	N-PA	F	28	10	--	51	30	23	263	34
77	PA	F	28	8	73	37	26	19	225	68
78	N-PA	M	43	10	--	29	31	24	241	42
79	N-PA	F	27	9	70	14	24	13	225	36
80	N-PA	F	35	11	81	45	10	12	237	38
81	PA	F	30	9	83	27	35	19	233	142
82	N-PA	F	29	11	70	--	19	21	238	32
83	N-PA	M	31	11	81	--	16	20	255	26
84	N-PA	F	38	8	54	30	11	10	226	52
85	N-PA	M	45	11	[illegible]	38	38	29	263	4
86	N-PA	M	23	8	78	37	19	24	247	60
87	N-PA	M	20	9	--	34	26	21	229	32

	Class	Sex	Age	Gr. Comp.	SRA	Para. Mean.	Ari. Comp.	Ari. Reas.	GED	Hrs.
88	N-PA	F	28	11	--	44	8	14	231	42
89	N-PA	F	31	8	79	--	7	12	226	42
90	N-PA	F	49	10	73	30	14	10	237	56
91	N-PA	M	25	10	82	50	20	19	291	24
92	PA	F	24	9	78	40	12	16	225	126
93	N-PA	F	30	--	79	37	10	19	246	44
94	PA	F	22	11	--	40	22	17	234	116
95	N-PA	F	53	10	67	2	18	5	226	222
96	N-PA	M	57	8	76	18	10	16	228	66
97	N-PA	F	41	9	84	39	23	20	257	26
98	N-PA	F	30	9	76	--	11	20	230	36
99	N-PA	F	33	10	79	--	32	25	253	36
100	N-PA	F	38	11	80	18	25	15	237	108
101	N-PA	M	46	10	80	36	17	24	239	48
102	PA	F	23	10	80	41	19	11	225	92
103	PA	F	23	10	78	54	16	24	274	68
104	PA	F	23	10	80	46	27	16	254	28
105	N-PA	F	28	8	78	--	17	16	255	28
106	PA	F	34	10	75	31	7	8	227	146
107	PA	F	23	9	82	56	27	21	282	126
108	N-PA	F	51	10	--	43	15	20	272	34
109	N-PA	F	17	10	72	30	17	17	231	170
110	N-PA	F	28	8	68	--	11	8	225	156
111	PA	F	29	10	66	--	18	14	226	38
112	N-PA	F	34	9	--	33	20	23	226	44
113	N-PA	M	25	9	82	33	14	7	233	50
114	PA	M	40	8	84	39	19	21	252	50
115	N-PA	F	30	10	79	33	25	16	253	34
116	PA	F	20	9	86	47	29	22	252	22

	Class	Sex	Age	Gr. Comp.	SRA	Para. Mean.	Ari. Comp.	Ari. Reas.	GED	Hrs.
117	N-PA	F	34	9	77	38	18	9	242	162
118	N-PA	F	37	10	78	31	21	11	245	40
119	N-PA	F	34	11	--	--	--	--	---	--
120	PA	F	22	10	81	52	26	17	248	48
121	PA	F	47	9	69	33	9	12	231	188
122	N-PA	F	30	10	80	--	17	18	270	?
123	N-PA	F	29	11	78	40	13	14	236	78
124	N-PA	F	53	9	--	51	25	23	290	34
125	PA	F	27	9	78	24	16	17	238	62
126	PA	F	21	10	--	43	16	17	249	52
127	PA	F	23	10	36	30	20	14	228	156
128	N-PA	F	32	9	76	--	12	7	229	22
129	N-PA	F	22	11	--	35	13	16	231	20
130	N-PA	F	33	9	78	46	6	14	228	26
131	N-PA	M	38	9	--	43	25	21	258	6
132	N-PA	F	38	8	69	28	14	6	226	34
133	N-PA	M	19	10	78	--	18	16	251	4
134	N-PA	F	60	8	74	36	9	12	237	68
135	N-PA	F	22	10	82	--	21	22	256	12
136	N-PA	F	50	8	82	43	22	25	274	50
137	PA	F	27	9	72	28	33	25	225	76
138	PA	F	51	8	65	32	27	14	226	610
139	N-PA	M	18	9	83	--	35	25	275	8
140	N-PA	M	25	11	69	24	6	7	226	52
141	N-PA	F	44	8	71	22	20	19	225	52
142	N-PA	M	44	8	--	40	19	23	242	36
143	PA	F	37	11	76	33	21	17	227	212
144	N-PA	F	19	9	--	49	24	17	260	34
145	N-PA	M	20	10	--	37	23	16	226	4

	Class	Sex	Age	Gr. Comp.	SRA	Para. Mean.	Ari. Comp.	Ari. Reas.	GED	Hrs.
146	N-PA	F	39	11	82	53	26	28	281	18
147	PA	F	32	8	63	--	14	11	226	248
148	N-PA	M	4[illegible]		71	--	11	24	244	8
149	N-PA	M	22	10	80	29	23	24	227	44
150	N-PA	F	21	10	78	27	29	23	235	60
151	N-PA	M	36	10	83	--	21	17	228	10
152	N-PA	F	21	10	77	34	20	14	225	104
153	N-PA	F	41	11	85	50	20	19	275	72
154	PA	F	19	11	75	41	18	16	235	84
155	N-PA	F	20	10	88	50	17	25	266	20
156	N-PA	F	45	9	70	21	11	10	226	60
157	PA	F	21	9	68	39	24	11	225	246
158	N-PA	F	42	10	87	54	25	24	278	38
159	PA	F	25	9	84	43	13	18	254	86
160	N-PA	F	38	11	--	30	18	10	225	18
161	N-PA	F	36	--	--	45	13	14	234	42
162	N-PA	F	21	9	88	--	35	20	287	26
163	N-PA	F	38	10	83	32	17	16	229	24
164	N-PA	F	24	11	--	37	18	8	244	52
165	N-PA	F	33	9	80	49	19	18	252	60
166	PA	F	24	9	85	49	26	22	246	74
167	N-PA	F	32	9	--	23	11	13	226	42
168	N-PA	F	40	11	--	46	14	14	251	32
169	N-PA	F	49	10	93	--	24	25	302	8
170	PA	F	28	8	87	54	24	21	290	36
171	N-PA	M	23	9	79	48	18	20	226	217
172	PA	F	29	9	74	45	17	21	225	288
173	PA	F	22	10	83	42	26	15	241	78
	N-PA	M	42	8	--	38	31	28	231	40

	Class	Sex	Age	Gr. Comp.	SRA	Para. Mean.	Ari. Comp.	Ari. Reas.	GED	Hrs.
175	N-PA	F	25	10	80	41	17	17	261	52
176	N-PA	F	34	10	79	45	21	12	226	44
177	PA	F	31	11	85	58	39	27	293	26
178	PA	F	20	11	81	40	27	21	234	66
179	N-PA	M	23	10	81	53	21	21	273	38
180	N-PA	M	27	9	78	33	5	10	226	52
181	N-PA	M	53	10	79	38	26	20	243	92
182	PA	F	51	8	70	17	20	10	227	412
183	N-PA	F	58	11	72	30	9	10	226	24
184	N-PA	F	25	11	83	42	36	27	311	32
185	N-PA	M	19	10	73	39	12	9	226	76
186	N-PA	F	28	9	83	52	35	25	286	30
187	N-PA	F	19	10	68	32	10	15	225	162
188	N-PA	F	43	11	86	44	15	18	259	6
189	N-PA	F	50	9	--	24	7	14	226	42
190	N-PA	M	31	9	74	31	12	15	227	54
191	N-PA	F	36	8	69	--	1	6	233	72
192	PA	F	23	9	70	35	23	9	226	158
193	N-PA	F	32	8	68	20	15	16	228	68
194	N-PA	F	44	8	--	32	12	14	232	42
195	N-PA	M	49	8	--	18	11	16	229	44
196	N-PA	F	50	8	78	--	6	13	241	58
197	N-PA	F	23	10	--	59	26	20	313	40
198	N-PA	F	55	10	82	48	23	15	246	40
199	N-PA	F	33	8	81	37	12	17	234	36
200	PA	F	29	10	86	57	23	24	271	52
201	N-PA	M	44	8	84	42	19	23	269	176
202	N-PA	F	39	9	73	--	25	24	258	30

Age Tables

The following page is an age frequency distribution table based on the described study group. The left hand column represents the age range from 15 to 71, and it is divided into age units of 3. The right hand column indicates the frequency of students by age category. A histogram is then formed to provide a visual explanation. The total number of students in the study is found at the bottom of the frequency column.

The succeeding four tables are a breakdown of the initial table based on males, females, Public Aid students, and Non-Public Aid students.

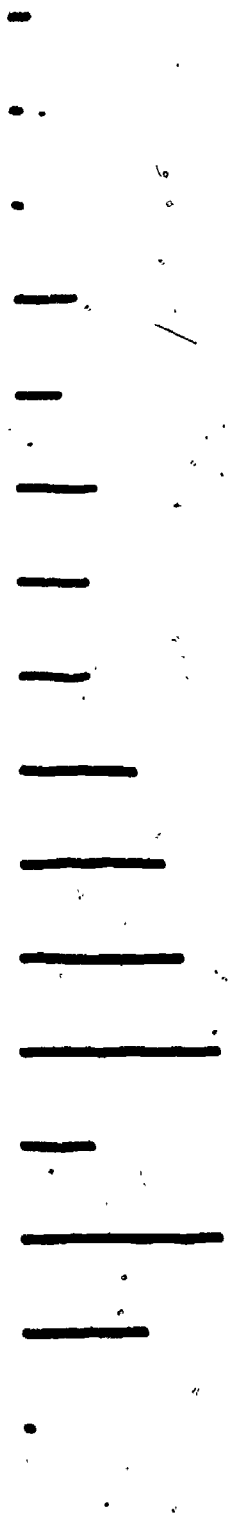
Age Table

	Fr
69 - 71	1
66 - 68	
63 - 65	
60 - 62	2
57 - 59	2
54 - 56	1
51 - 53	8
48 - 50	8
45 - 47	10
42 - 44	14
39 - 41	13
36 - 38	18
33 - 35	16
30 - 32	20
27 - 29	24
24 - 26	11
21 - 23	31
18 - 20	22
15 - 17	1
	201

Age Table (Male)

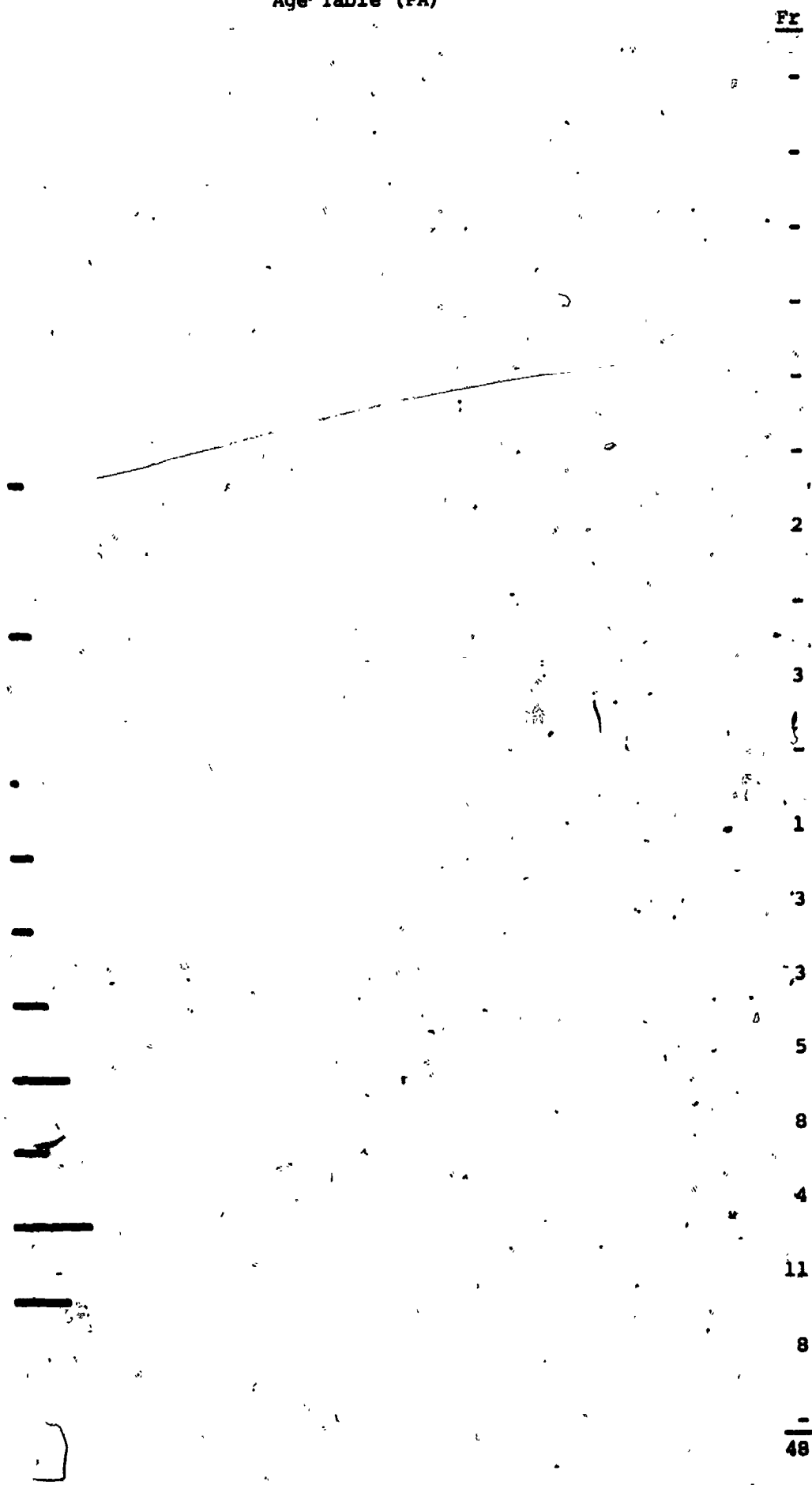
	Fr
69 - 71	1
66 - 68	-
63 - 65	-
60 - 62	-
57 - 59	1
54 - 56	-
51 - 53	1
48 - 50	3
45 - 47	2
42 - 44	6
39 - 41	5
36 - 38	5
33 - 35	-
30 - 32	2
27 - 29	2
24 - 26	3
21 - 23	9
18 - 20	8
15 - 17	-
	48

Age Table (Female)



	Fr
69 - 71	-
66 - 68	-
63 - 65	-
60 - 62	2
57 - 59	1
54 - 56	1
51 - 53	7
48 - 50	5
45 - 47	8
42 - 44	8
39 - 41	9
36 - 38	13
33 - 35	16
30 - 32	18
27 - 29	22
24 - 26	8
21 - 23	22
18 - 20	14
15 - 17	1
	154

Age Table (PA)


Fr
69 - 71
66 - 68
63 - 65
60 - 62
57 - 59
54 - 56
51 - 53
48 - 50
45 - 47
42 - 44
39 - 41
36 - 38
33 - 35
30 - 32
27 - 29
24 - 26
21 - 23
18 - 20
15 - 17
2
3
1
3
3
5
8
4
11
8
48

Age Table Non-Public Aid

	Fr
69 - 71	1
66 - 68	-
63 - 65	-
60 - 62	2
57 - 59	2
54 - 56	1
51 - 53	6
48 - 50	8
45 - 47	7
42 - 44	14
39 - 41	12
36 - 38	15
33 - 35	13
30 - 32	15
27 - 29	16
24 - 26	7
21 - 23	20
18 - 20	14
15 - 17	
	154

Grade Tables

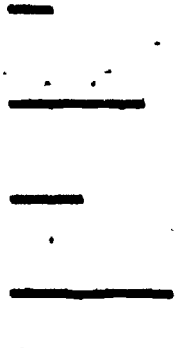
The following table is a grade frequency distribution table based on the described study group. The left hand column represents the grade range from 8 through 11 and it is divided by grade level. The right hand column indicates the frequency of students by grade. A histogram is then formed to provide a visual explanation. The total number of students in the study is found at the bottom of the frequency column.

The succeeding four tables are a breakdown of the initial table based on males, females, Public Aid students and Non-Public Aid students.

Grade Table

	Fr
11	39
10	63
9	44
8	51
	197

Grade Table (Male)



	Fr
11	5
10	15
9	8
8	18
	46

Grade Table (Female)

	Fr
11	34
10	48
9	36
8	33
	151

Grade Table (PA)

	Fr
11	12
10	14
9	13
8	7
	46

Grade Table (Non-Public Aid)

	Fr
11	27
10	49
9	31
8	44
	151

SRA Tables

The following table is an SRA Raw Score frequency distribution table based on the described study group. The left hand column represents the Raw Score range of the SRA - RFU placement test and is divided into scores of three per unit. The right hand column indicates the frequency of students per category. The total number of students in the study is found at the bottom of the frequency column.

The succeeding four tables are a breakdown of the initial table based on males, females, Public Aid students and Non-Public Aid students.

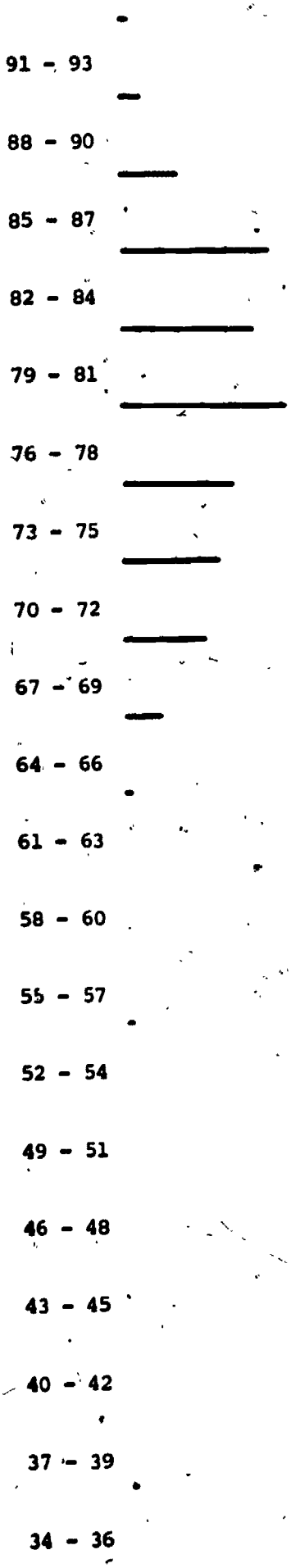
SRA Table

	Fr
91 - 93	1
88 - 90	3
85 - 87	15
82 - 84	27
79 - 81	31
76 - 78	27
73 - 75	20
70 - 72	15
67 - 69	12
64 - 66	5
61 - 63	2
58 - 60	-
55 - 57	-
52 - 54	1
49 - 51	-
46 - 48	
43 - 45	-
40 - 42	1
37 - 39	-
34 - 36	1
	161

SRA Table (Male)

	Fr
91 - 93	-
88 - 90	-
85 - 87	1
82 - 84	7
79 - 81	13
76 - 78	5
73 - 75	4
70 - 72	3
67 - 69	1
64 - 66	-
61 - 63	1
58 - 60	-
55 - 57	-
52 - 54	-
49 - 51	-
46 - 48	-
43 - 45	-
40 - 42	1
37 - 39	-
34 - 36	-
	36

SRA Table (Female)



	Fr
91 - 93	1
88 - 90	3
85 - 87	8
82 - 84	20
79 - 81	18
76 - 78	22
73 - 75	15
70 - 72	13
67 - 69	11
64 - 66	5
61 - 63	1
58 - 60	-
55 - 57	-
52 - 54	1
49 - 51	-
46 - 48	1
43 - 45	-
40 - 42	-
37 - 39	-
34 - 36	1

SRA Table (PA)

	Fr
91- 93	-
88 - 90	1
85 - 87	7
82 - 84	7
79 - 81	5
76 - 78	5
73 - 75	8
70 - 72	4
67 - 69	3
64 - 66	3
61 - 63	1
58 - 60	-
55 - 57	-
52 - 54	-
49 - 51	-
46 - 48	-
43 - 45	-
40 - 42	-
37 - 39	-
34 - 36	1/45

SRA Table (Non-Public Aid)

	Fr
91 - 93	1
88 - 90	2
85 - 87	8
82 - 84	20
79 - 81	26
76 - 78	22
73 - 75	12
70 - 72	11
67 - 69	9
64 - 66	2
61 - 63	1
58 - 60	-
55 - 57	-
52 - 54	1
49 - 51	-
46 - 48	-
43 - 45	-
40 - 42	1
37 - 39	-
34 - 36	-
	116

Paragraph Meaning Table

The following table is formulated on the raw scores of the Paragraph Meaning section (Stanford Achievement Test - Advanced Complete Battery - Forms W & Y) based on the described study group. The left hand column represents the raw score and the center column includes interpolated grade equivalency scores. The right hand column indicates the frequency of students per category with the total number of students found at the bottom of the frequency column.

The succeeding four tables are a breakdown of the initial table based on males, females, Public Aid students and Non-Public Aid students.

	Par Mean Grade	Fr
59 - 60	12.9	1
56 - 58	12.6	6
53 - 55	12.2	5
50 - 52	11.7	12
47 - 49	11.2	10
44 - 46	10.7	15
41 - 43	10.4	19
38 - 40	9.4	23
35 - 37	8.4	15
32 - 34	7.7	14
29 - 31	7.1	15
26 - 28	6.5	9
23 - 25	6.1	6
20 - 22	5.6	6
17 - 19	5.1	7
14 - 16	4.7	5
11 - 13	4.1	1
8 - 10	3.3	3
5 - 7	2.6	-
2 - 4	2.0	1
		173

	Par Mean (Male) Grade	Fr
59 - 60	12.9	-
56 - 58	12.6	-
53 - 55	12.2	1
50 - 52	11.7	2
47 - 49	11.2	3
44 - 46	10.7	3
41 - 43	10.4	4
38 - 40	9.4	8
35 - 37	8.4	4
32 - 34	7.7	3
29 - 31	7.1	4
26 - 28	6.5	1
23 - 25	6.1	1
20 - 22	5.6	2
17 - 19	5.1	1
14 - 16	4.7	2
11 - 13	4.1	1
8 - 10	3.3	1
5 - 7	2.6	-
2 - 4	2.0	-
		34 41

	Par Mean (Female) Grade	Fr
59 - 60	12.9	1
56 - 58	12.6	6
53 - 55	12.2	5
50 - 52	11.7	10
47 - 49	11.2	7
44 - 46	10.7	12
41 - 43	10.4	15
38 - 40	9.4	15
35 - 37	8.4	11
32 - 34	7.7	11
29 - 31	7.1	11
26 - 28	6.5	8
23 - 25	6.1	5
20 - 22	5.6	4
17 - 19	5.1	6
14 - 16	4.7	3
11 - 13	4.1	-
8 - 10	3.3	2
5 - 7	2.6	-
2 - 4	2.0	1

	Par Mean (PA) Grade	Fr
59 - 60	12.9	-
56 - 58	12.6	4
53 - 55	12.2	2
50 - 52	11.7	2
47 - 49	11.2	3
44 - 46	10.7	5
41 - 43	10.4	7
38 - 40	9.4	8
35 - 37	8.4	4
32 - 34	7.7	3
29 - 31	7.1	2
26 - 28	6.5	3
23 - 25	6.1	1
20 - 22	5.6	1
17 - 19	5.1	2
14 - 16	4.7	-
11 - 13	4.1	-
8 - 10	3.3	-
5 - 7	2.6	-
2 - 4	2.0	-
		47

	Par Mean Grade (Non-Public Aid)	Fr
59 - 60	12.9	1
56 - 58	12.6	2
53 - 55	12.2	3
50 - 52	11.7	10
47 - 49	11.2	7
44 - 46	10.7	10
41 - 43	10.4	12
38 - 40	9.4	15
35 - 37	8.4	11
32 - 34	7.7	11
29 - 31	7.1	13
26 - 28	6.5	6
23 - 25	6.1	5
20 - 22	5.6	5
17 - 19	5.1	5
14 - 16	4.7	5
11 - 13	4.1	1
8 - 10	3.3	3
5 - 7	2.6	-
2 - 4	2.0	1

122

Arithmetic Computation Table

The following table is formulated on the raw scores of the Arithmetic Computation section (Stanford Achievement Test - Advanced Complete Battery - Forms W & Y) based on the described study group. The left hand column represents the raw score and the center column includes interpolated grade equivalency scores. The right hand column indicates the frequency of students per category with the total number of students found at the bottom of the frequency column.

The succeeding four tables are a breakdown of the initial table based on males, females, Public Aid students and Non-Public Aid students.

	Arith Comp Grade	Fr
38 - 39	12.8	2
36 - 37	12.4	4
34 - 35	12.1	7
32 - 33	11.7	4
30 - 31	11.0	7
28 - 29	10.3	5
26 - 27	9.8	18
24 - 25	8.9	20
22 - 23	8.3	15
20 - 21	7.9	18
18 - 19	7.5	21
16 - 17	6.7	21
14 - 15	6.3	12
12 - 13	5.9	14
10 - 11	5.5	15
8 - 9	4.9	5
6 - 7	4.4	8
4 - 5	3.8	4
1 - 3	2.6	1/201

Arith Comp (Male)

	Grade	Fr
38 - 39	12.8	1
36 - 37	12.4	1
34 - 35	12.1	2
32 - 33	11.7	-
30 - 31	11.0	5
28 - 29	10.3	-
26 - 27	9.8	4
24 - 25	8.9	1
22 - 23	8.3	4
20 - 21	7.9	6
18 - 19	7.5	7
16 - 17	6.7	4
14 - 15	6.3	2
12 - 13	5.9	2
10 - 11	5.5	5
8 - 9	4.9	-
6 - 7	4.4	1
4 - 5	3.8	2
1 - 3	2.6	-
		47

Arith Comp (Female)	Grade	Fr
38 - 39	12.8	1
36 - 37	12.4	3
34 - 35	12.1	5
32 - 33	11.7	4
30 - 31	11.0	2
28 - 29	10.3	5
26 - 27	9.8	14
23 - 25	8.9	19
22 - 23	8.3	11
20 - 21	7.9	12
18 - 19	7.5	14
16 - 17	6.7	17
14 - 15	6.3	10
12 - 13	5.9	12
10 - 11	5.5	10
8 - 9	4.9	5
6 - 7	4.4	7
4 - 5	3.8	2
1 - 3	2.6	1
		154

	Arith Comp (PA) Grade	Fr
38 - 39	12.8	1
36 - 37	12.4	-
34 - 35	12.1	1
32 - 33	11.7	3
30 - 31	11.0	2
28 - 29	10.3	1
26 - 27	9.8	10
24 - 25	8.9	6
22 - 23	8.3	2
20 - 21	7.9	4
18 - 19	7.5	5
16 - 17	6.7	4
14 - 15	6.3	2
12 - 13	5.9	4
10 - 11	5.5	-
8 - 9	4.9	1
6 - 7	4.4	1
4 - 5	3.8	1
1 - 3	2.6	-
		48

Arith Comp (Non-Public Aid)

	Grade	Fr
38 - 39	12.8	1
36 - 37	12.4	4
34 - 35	12.1	6
32 - 33	11.7	1
30 - 31	11.0	5
28 - 29	10.3	4
26 - 27	9.8	8
24 - 25	8.9	14
22 - 23	8.3	13
20 - 21	7.9	14
18 - 19	7.5	16
16 - 17	6.7	17
14 - 15	6.3	10
12 - 13	5.9	10
10 - 11	5.5	15
8 - 9	4.9	4
6 - 7	4.4	7
4 - 5	3.8	3
1 - 3	2.6	1
		153

Arithmetic Reasoning Table

The following table is formulated on the raw scores of the Arithmetic Reasoning section (Stanford Achievement Test - Advanced Complete Battery - Forms W & Y) based on the described study group. The left hand column represents the raw score and the center column includes interpolated grade equivalency scores. The right hand column indicates the frequency of students per category with the total number of students found at the bottom of the frequency column.

The succeeding four tables are a breakdown of the initial table based on the males, females, Public Aid students and Non-Public Aid students.

	Arith Reas Grade	Fr
35 - 36	12.9 +	3
33 - 34	12.9 +	1
31 - 32	12.9 +	1
29 - 30	12.9	1
27 - 28	12.5	6
25 - 26	12.1	10
23 - 24	11.5	23
21 - 22	11.0	20
19 - 20	10.2	21
17 - 18	9.1	25
15 - 16	8.2	31
13 - 14	7.6	19
11 - 12	7.1	16
9 - 10	6.3	13
7 - 8	5.6	6
5 - 6	4.5	4
3 - 4	3.5	1
1 - 2	2.6	-
		201

Arith Reas (Male)

	Grade	Fr
35 - 36	12.9 +	1
33 - 34	12.9 +	-
31 - 32	12.9 +	1
29 - 30	12.9	1
27 - 28	12.5	2
25 - 26	12.1	3
23 - 24	11.5	9
21 - 22	11.0	7
19 - 20	10.2	7
17 - 18	9.1	3
15 - 16	8.2	6
13 - 14	7.6	1
11 - 12	7.1	3
9 - 10	6.3	2
7 - 8	5.6	2
5 - 6	4.5	-
3 - 4	3.5	-
1 - 2	2.6	-
		45

Arith Reas (Female)

	Grade	Fr
35 - 36	12.9 +	2
33 - 34	12.9 +	
31 - 32	12.9 +	-
29 - 30	12.9	-
27 - 28	12.5	4
25 - 26	12.5	7
23 - 24	12.1	14
21 - 22	11.5	13
19 - 20	11.0	14
17 - 18	10.2	22
15 - 16	9.1	25
13 - 14	8.2	18
11 - 12	7.6	13
9 - 10	7.1	11
7 - 8	6.3	4
5 - 6	5.6	4
3 - 4	4.5	1
1 - 2	2.6	-
		153

	Arith Reas (PA) Grade	Fr
35 - 36	12.9 +	1
33 - 34	12.9 +	-
31 - 32	12.9 +	-
29 - 30	12.9	-
27 - 28	12.[illegible]	1
25 - 26	12.1	2
23 - 24	11.5	2
21 - 22	11.0	8
19 - 20	10.2	3
17 - 18	9.1	12
15 - 16	8.2	6
13 - 14	7.6	4
11 - 12	7.1	6
9 - 10	6.3	2
7 - 8	5.6	1
5 - 6	4.5	-
3 - 4	3.5	-
1 - 2	2.6	-
		48

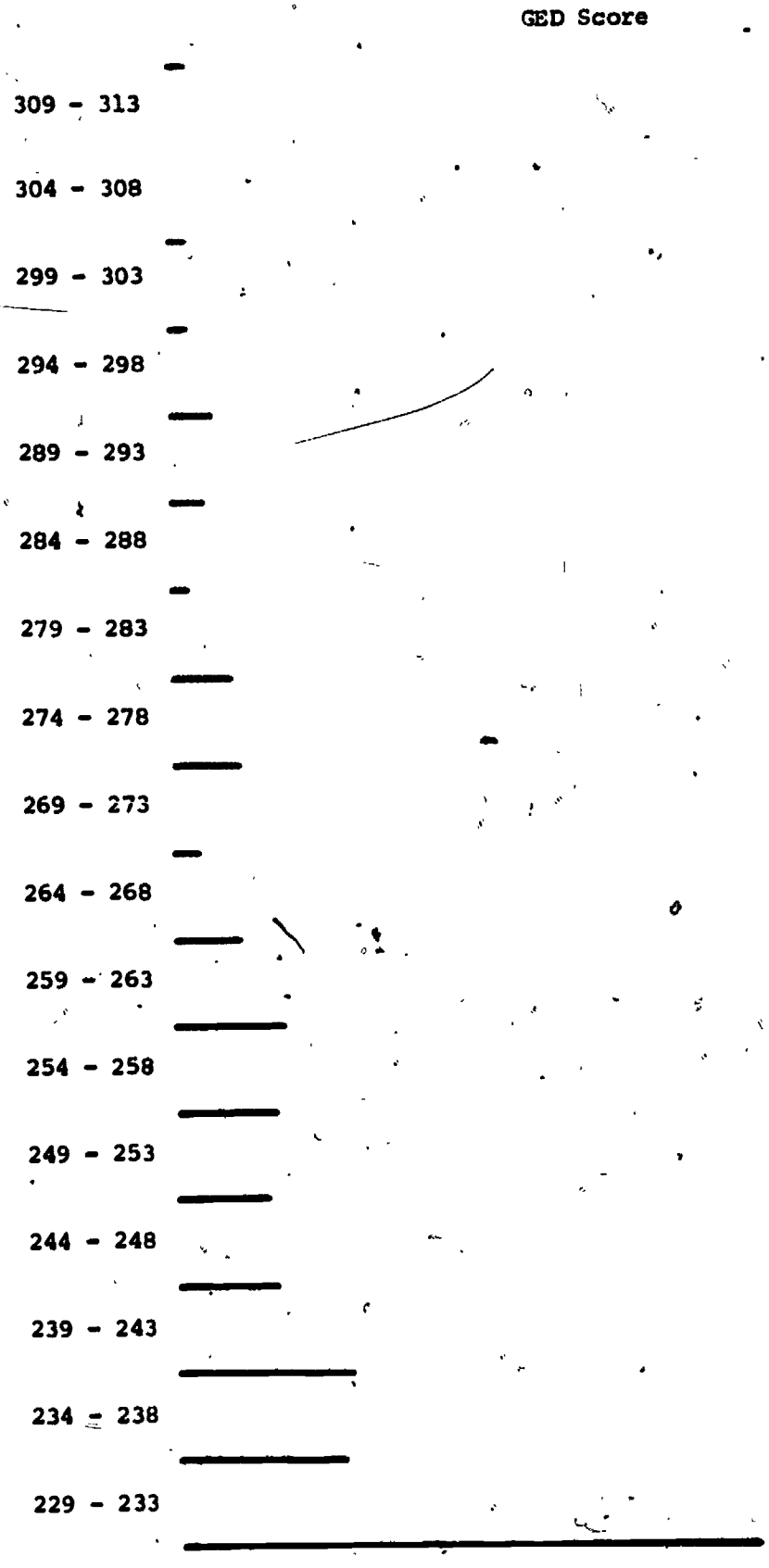
Arith Reas (Non-Public Aid)

	Grade	Fr
35 - 36	12.9 +	2
33 - 34	12.9 +	1
31 - 32	12.9 +	1
29 - 30	12.9	1
27 - 28	12.5	5
25 - 26	12.1	8
23 - 24	11.5	21
21 - 22	11.0	12
19 - 20	10.2	18
17 - 18	9.1	13
15 - 16	8.2	25
13 - 14	7.6	15
11 - 12	7.1	10
9 - 10	6.3	11
7 - 8	5.6	5
5 - 6	4.5	4
3 - 4	3.5	1
1 - 2	2.6	-
		153

GED Score Table

The following table is formulated on the standard scores of the General Educational Developmental (GED) exam based on the described group. The left hand column represents the total score of five sub-tests and the frequency is found in the right hand column. The total number of students is in the lower right hand corner.

The succeeding four tables are a breakdown of the initial table based on the males, females, Public Aid students and Non-Public Aid students.


GED Score
Fr
309 - 313
2
304 - 308
-
299 - 303
2
294 - 298
2
289 - 293
5
284 - 288
4
279 - 283
2
274 - 278
7
269 - 273
8
264 - 268
3
259 - 263
8
254 - 258
13
249 - 253
12
244 - 248
11
239 - 243
12
234 - 238
21
229 - 233
20
225 - 228
69/201

GED Score (Male)

	Fr
309 - 313	-
304 - 308	-
299 - 303	-
294 - 298	1
289 - 293	1
284 - 288	-
279 - 283	-
274 - 278	2
269 - 273	2
264 - 268	-
259 - 263	2
254 - 258	4
249 - 253	2
244 - 248	2
239 - 243	6
234 - 238	4
229 - 233	6
225 - 228	16
	48

GED Score (Female)

	Fr
309 - 313	2
304 - 308	-
299 - 303	2
294 - 298	1
289 - 293	4
284 - 288	4
279 - 283	2
274 - 278	5
269 - 273	6
264 - 268	3
259 - 263	6
254 - 258	9
249 - 253	10
244 248	9
239 - 243	6
234 - 238	17
229 - 233	14
225 - 228	53/153

GED Score (PA)

	Fr
309 - 313	-
304 - 308	-
299 - 303	-
294 - 298	1
289 - 298	2
284 - 288	-
279 - 283	1
274 - 278	1
269 - 273	2
264 - 268	1
259 - 263	-
254 - 258	2
249 - 253	4
244 - 248	3
239 - 243	1
234 - 238	4
229 - 233	4
225 - 228	22/48

GED Score (Non-Public Aid)

	Fr
309 - 313	2
304 - 308	-
299 - 303	2
294 - 298	1
289 - 293	3
284 - 288	4
279 - 283	1
274 - 278	6
269 - 273	6
264 - 268	2
259 - 263	8
254 - 258	11
249 - 253	8
244 - 248	8
239 - 243	11
234 - 238	17
229 - 233	16
225 - 228	47
	153

Hours in Class

The following table is formulated on the total number of hours spent in the classroom at our Center, and it is based on the described group. The left hand column represents the number of hours spent in the classroom, and the right hand column is the number of students per category. The total number of students is shown in the lower right hand corner.

The succeeding four tables are a breakdown of the initial table based on males, females, Public Aid students and Non-Public Aid students.

Hours in Class	Fr
579 - 610	1
549 - 578	-
519 - 548	-
489 - 518	1
459 - 488	-
429 - 458	-
399 - 428	1
369 - 398	2
339 - 368	-
309 - 338	4
279 - 308	-
249 - 278	1
219 - 248	6
189 - 218	2
159 - 188	8
129 - 158	9
99 - 128	11
69 - 98	20
39 - 68	61
9 - 38	65
1 - 8	9
	201

Hours in Class (Male)

	Fr
579 - 610	
549 - 578	-
519 - 548	-
489 - 518	-
459 - 488	-
429 - 458	-
399 - 438	-
369 - 398	-
339 - 368	-
309 - 338	-
279 - 308	1
249 - 278	-
219 - 248	1
189 - 218	1
159 - 188	1
129 - 158	2
99 - 128	1
69 - 98	2
39 - 68	19
9 - 38	15
1 - 8	6
	49

Hours in Class (Female)

	Fr
579 - 610	1
549 - 578	-
519 - 548	-
489 - 518	1
459 - 488	-
429 - 458	-
399 - 428	1
369 - 398	2
339 - 368	-
309 - 338	4
279 - 308	-
249 - 278	1
219 - 248	6
189 - 218	1
159 - 188	7
129 - 158	7
99 - 128	10
69 - 98	18
39 - 68	42
9 - 38	50
1 - 8	3
	154

Hours in Class (PA)	Fr
579 - 610	1
549 - 578	-
519 - 548	-
489 - 518	1
459 - 488	-
428 - 458	-
399 - 428	1
369 - 398	-
339 - 368	-
309 - 338	-
279 - 308	2
249 - 378	1
219 - 248	4
189 - 218	1
159 - 188	2
129 - 158	4
99 - 128	8
69 - 98	7
39 - 68	11
9 - 38	5
1 - 8	-
	48

Hours in Class (Non-Public Aid)

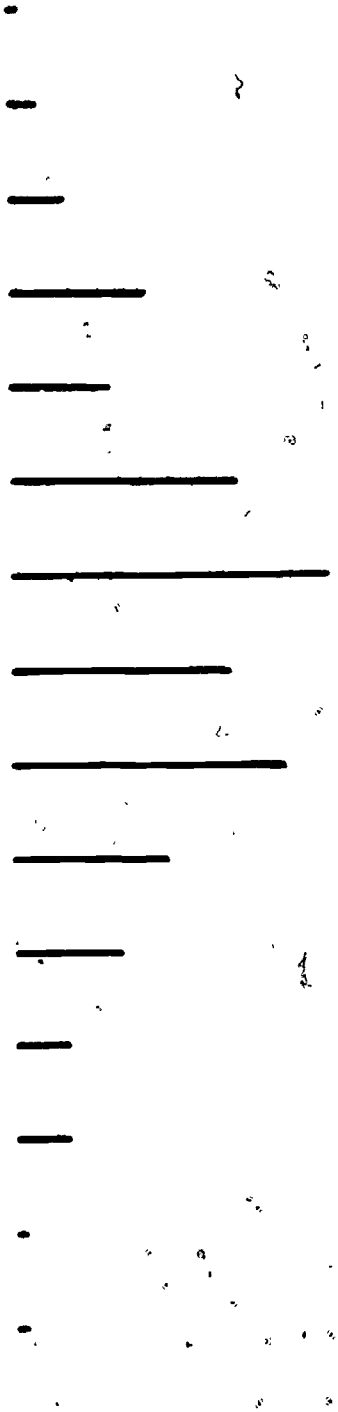
	Fr
579 - 610	-
549 - 578	-
519 - 548	-
489 - 518	-
459 - 488	-
428 - 458	-
399 - 428	-
369 - 398	2
339 - 368	-
309 - 338	4
279 - 308	-
249 - 278	-
219 - 248	2
189 - 218	1
159 - 188	6
129 - 158	5
99 - 128	3
69 - 98	13
39 - 68	50
9 - 38	60
1 - 8	9
	155

Language Usage

The following table is formulated on the Language section, subsection Language Usage, (Stanford Achievement Test, Advanced Complete Battery, Forms W & Y), based on the described study group. The left hand column represents the raw score and the right hand column indicates the frequency of students per category. The total number of students is found in the lower right hand column.

The succeeding four tables are a breakdown of the initial table based on males, females, Public Aid students and Non-Public Aid students.

Language

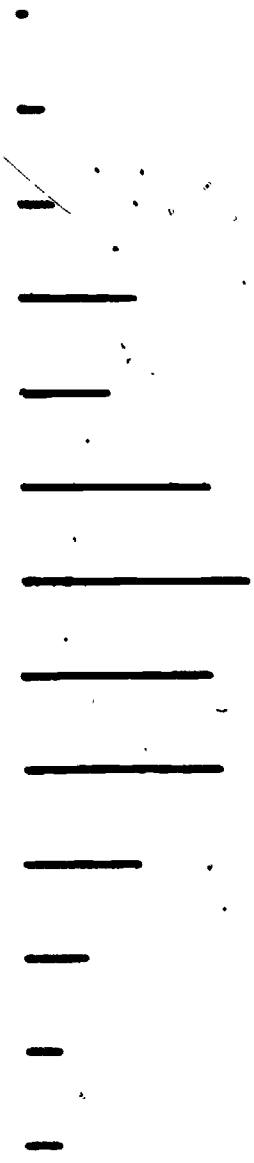


	Fr
34 - 35	1
32 - 33	3
30 - 31	6
28 - 29	15
26 - 27	11
24 - 25	25
22 - 23	35
20 - 21	24
18 - 19	30
16 - 17	17
14 - 15	12
12 - 13	6
10 - 11	6
8 - 9	1
6 - 7	1
	193

Language (Male)

	Fr
34 - 35	-
32 - 33	-
30 - 31	2
28 - 29	2
26 - 27	1
24 - 25	4
22 - 23	10
20 - 21	3
18 - 19	8
16 - 17	4
14 - 15	5
12 - 13	2
10 - 11	2
8 - 9	1
6 - 7	1
	45

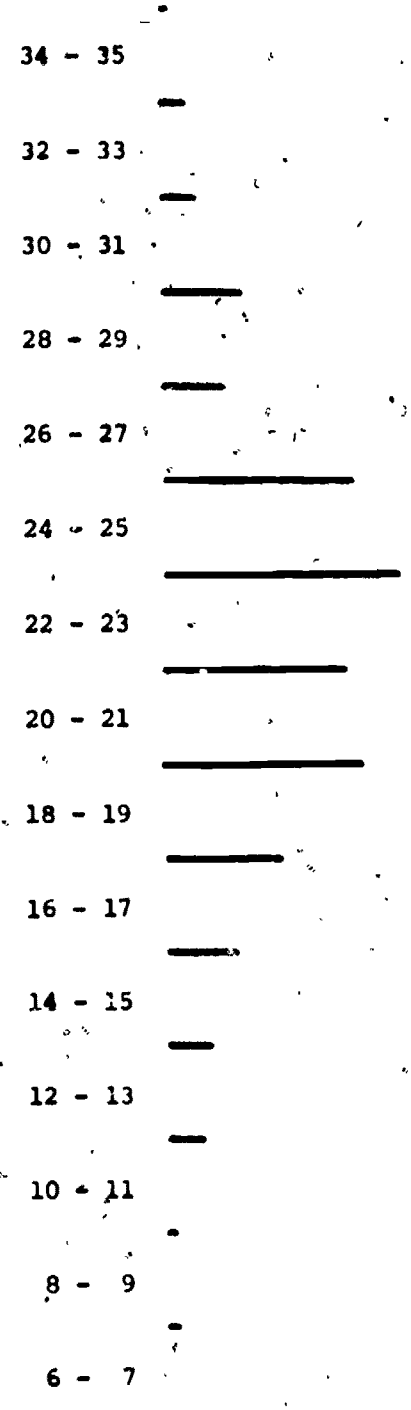
Language (Female)



	Fr
34 - 35	1
32 - 33	3
30 - 31	4
28 - 29	13
26 - 27	10
24 - 25	21
22 - 23	25
20 - 21	21
18 - 19	22
16 - 17	13
14 - 15	7
12 - 13	4
10 - 11	4
8 - 9	-
6 - 7	-
	148

	Fr
34 - 35	-
32 - 33	-
30 - 31	2
28 - 29	6
26 - 27	4
24 - 25	4
22 - 23	9
20 - 21	4
18 - 19	8
16 - 17	4
14 - 15	4
12 - 13	1
10 - 11	2
8 - 9	-
6 - 7	-
	48

Language (Non-Public Aid)

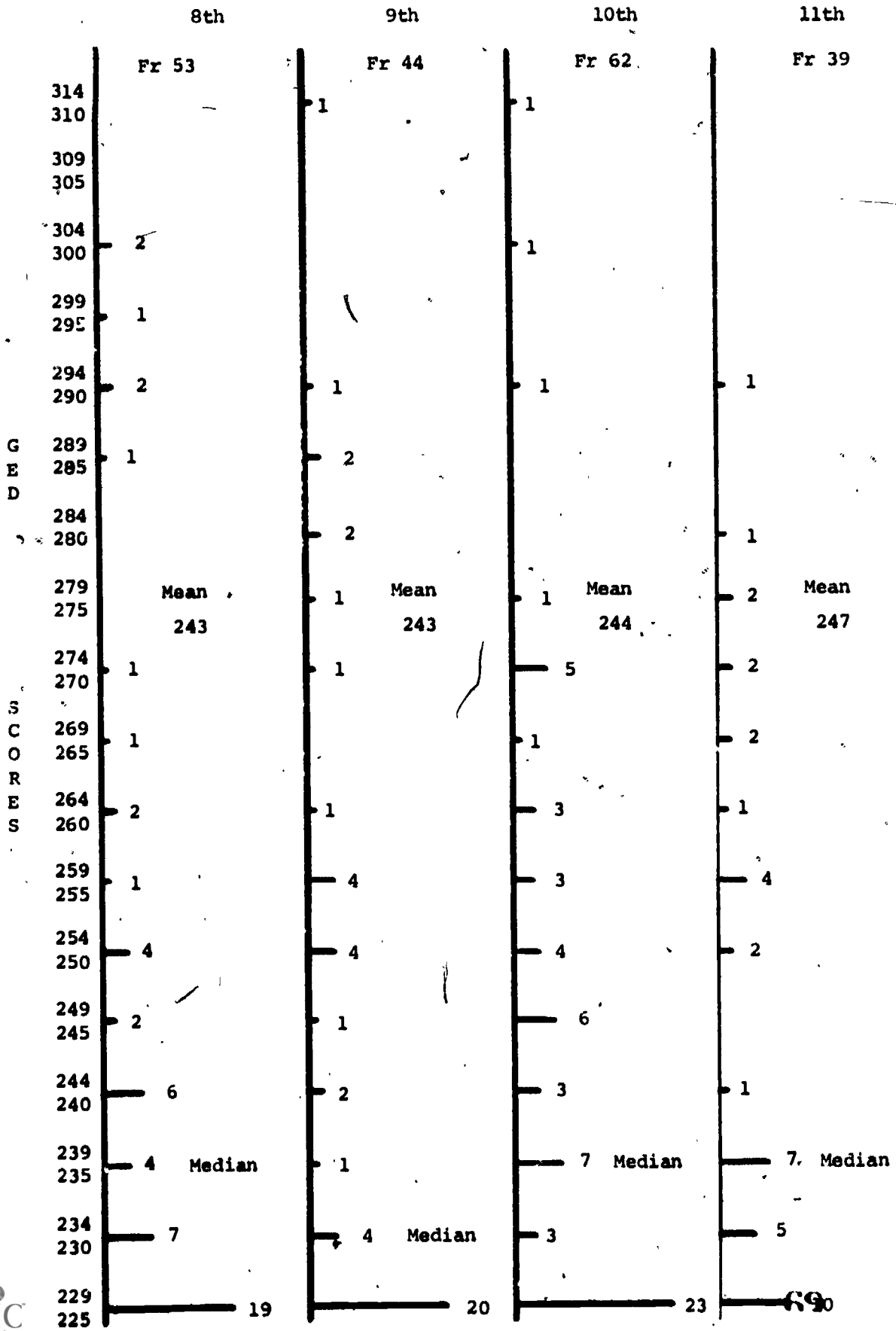


	Fr
34 - 35	1
32 - 33	3
30 - 31	4
28 - 29	9
26 - 27	7
24 - 25	21
22 - 23	26
20 - 21	20
18 - 19	22
16 - 17	13
14 - 15	8
12 - 13	5
10 - 11	4
8 - 9	1
6 - 7	1
	145

Grade Completed

The following table is formulated on the standard scores of the GED exam comparing the average (Mean-Median) scores by grade level completed in school. The left hand column is the standard score made on the GED. The columns represent 8th, 9th, 10th, and 11th grade completions respectively. The total number of the sample per grade is found at the top of each column. The median scores are found typed at the interval in which they fall.

GRADE COMPLETED



SCATTERGRAMS AND CORRELATION

The following section of the handbook is composed of scattergrams. The purpose of the diagram is to determine what factors are positively correlated. By knowing the correlation of two factors, we are able to predict the probabilities of success in passing the GED.

It must be remembered that it is easier to predict probabilities of groups as opposed to the individual.

For example:

If we take two factors such as age versus hours and plot a scattergram, we are trying to find out if the age is a detriment as it increases or an advantage as it decreases. The first chart starts with age in the left hand column with the lowest age at the bottom and the highest age at the top. The number of hours in class is plotted from low to high and left to right respectively. If one assumes that with an increase in age it is more difficult to learn and conversely easier to learn when younger, the following would appear on a scattergram. A line would be formed from the lower left hand corner of the graph to the upper right hand corner of the graph. With the enclosed scattergrams the dotted lines represent what is called a perfect correlation. This would then mean that as a person's age increases he would have more difficulty learning and therefore require more time before passing the GED exam. If the opposite were found to be true, a dotted line would be found reaching from the upper left hand corner to the lower right hand corner of the graph. This would mean that a person of greater age would learn in fewer hours than a person of a

younger age.

A perfect correlation of 1.0 would be obtained if all the scores fell directly on these aforementioned dotted lines. However, a perfect 1.0 correlation is a statistical impossibility (improbability). In this section we are not going to speak in terms of a correlation score but will rely on the tendency of a line to run from lower left to upper right or upper left to lower right. If the plotted line tends to run horizontally across the scattergram, then there would be little correlation between the two factors; such as age versus hours.

[1]"The meaning of correlation: When measures of two traits are secured for each individual in a group, it may frequently be noted that the two measures for any individual tend to have roughly the same relative position in their respective distributions; that is, individuals are above average in one trait tend also to be well above average in the other, those below average in one tend to be correspondingly below average in the other; and those at or near the average in one tend also to be at or near the average in the other. When this is true, we say that the two traits (or measures) are 'positively related' for the group in questions, or that they show a positive correlation."

The reader should, therefore, be looking for plotted lines running from lower left to upper right or plotted lines running from upper left to lower right. Lines, I repeat, which have a tendency to run horizontally will show a lack of correlation between the two factors.

The purpose of the above explanation is to assist those who are untrained in statistics.

Lindquist, E. F. A First Course in Statistics. Cambridge, Massachusetts: The Riverside Press, (1942) P. 153

Scattergram #1 Age Vs Hours

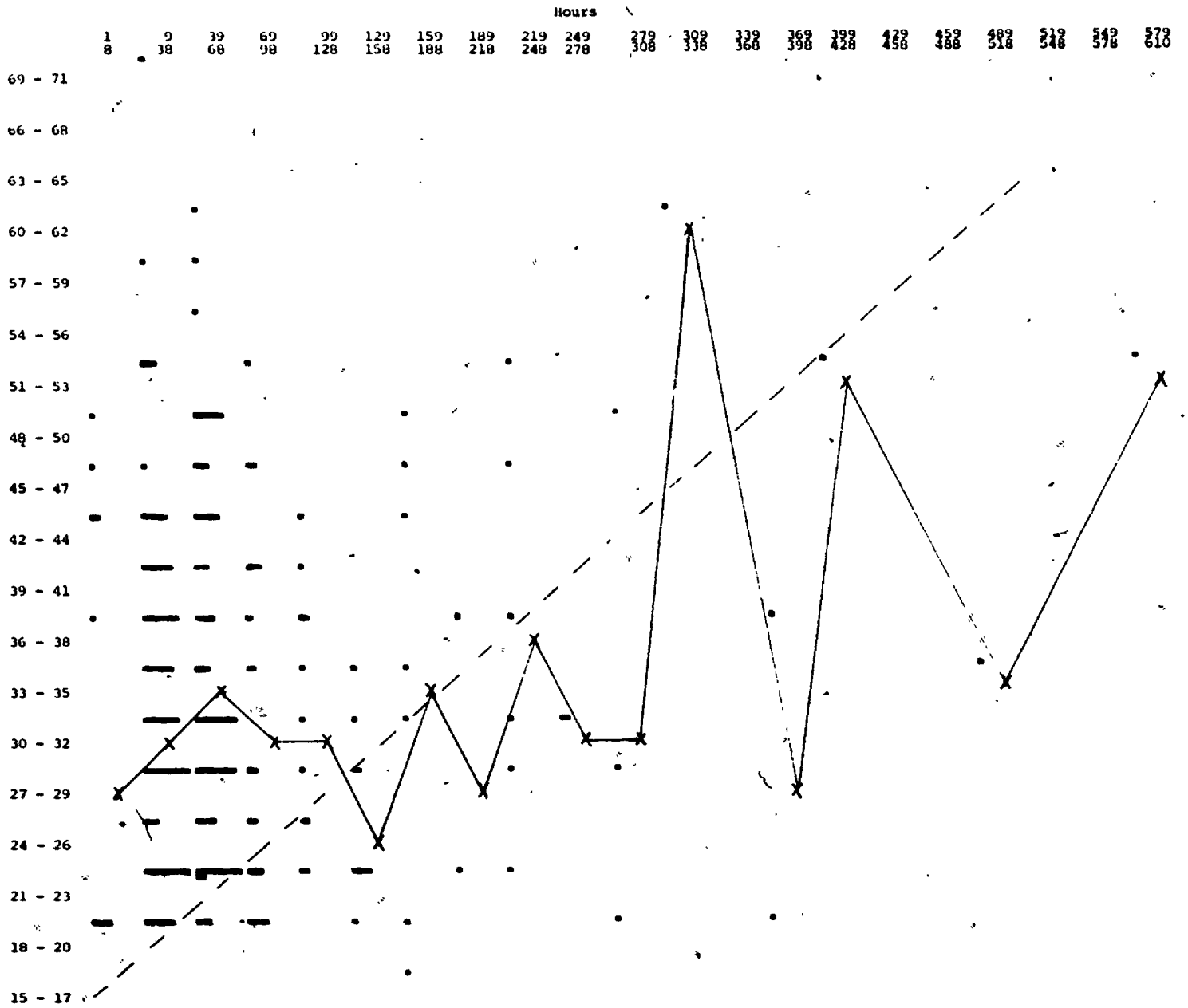
The left hand column represents the ages of students in the study. The top horizontal scores represent the number of hours spent in class by the respective students prior to achieving the GED exam.

Our attempt is to determine whether there is a correlation between the age of a student, and the number of hours spent in successfully completing the exam.

The writer has quite often been told by clients that "You can't teach an old dog new tricks", "I'm too old to learn", "It's been so long since I was in school". Their assumption is that they are too old to learn. Consequently their assumption would mean that the number of hours spent in study would increase with age.

If the hours increase with age, a diagonal line would be formed from lower left to upper right. Conversely, if the opposite were true, a line would develop from upper left to lower right.

The solid line formed on this particular graph runs on a relatively horizontal plane, indicating little correlation between age and hours. Far to the right of the scale, there are sharp rises in the graph. However, the number of students on this portion of the scale is inadequate and they would be classified statistically unsound compared to the total scale.


Hours
1 8
9 38
39 68
69 98
99 128
129 158
159 188
189 218
219 248
249 278
279 308
309 338
339 368
369 398
399 428
429 458
459 488
489 518
519 548
549 578
579 610
69 - 71
66 - 68
63 - 65
60 - 62
57 - 59
54 - 56
51 - 53
48 - 50
45 - 47
42 - 44
39 - 41
36 - 38
33 - 35
30 - 32
27 - 29
24 - 26
21 - 23
18 - 20
15 - 17
AGE

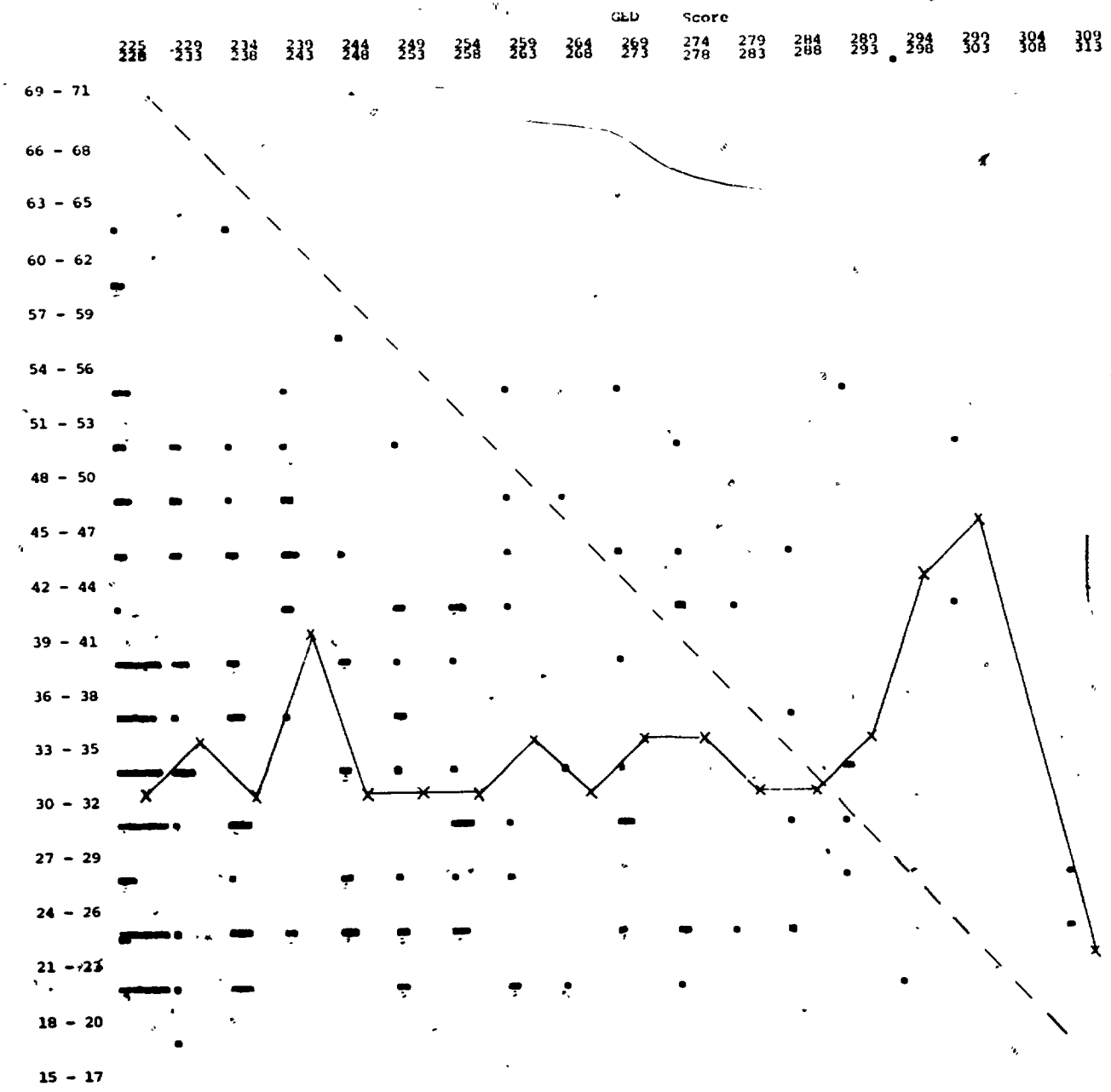
Scattergram #2 Age Vs GED Score

The left hand column represents the ages of students in the study. The top horizontal scores represent the total standard score obtained by the respective students on the GED exam.

Our attempt is to determine whether there is a correlation between the age of a student and his or her total score.

If one presumes that an older person would score lower on the GED than a younger person, a dotted diagonal line would be formed from the upper left to lower right corners of the graph. (This line is drawn on the enclosed graph).

The solid line formed on this graph runs on a relatively horizontal plane indicating little correlation between age and GED score. To the right hand side of the graph, the frequency of scores becomes inadequate and statistically unsound.


GED Score
225 229 234 239 244 249 254 259 264 269 274 279 284 289 294 299 304 309
228 233 238 243 248 253 258 263 268 273 278 283 288 293 298 303 308 313
69 - 71
66 - 68
63 - 65
60 - 62
57 - 59
54 - 56
51 - 53
48 - 50
45 - 47
42 - 44
39 - 41
36 - 38
33 - 35
30 - 32
27 - 29
24 - 26
21 - 23
18 - 20
15 - 17
AGE

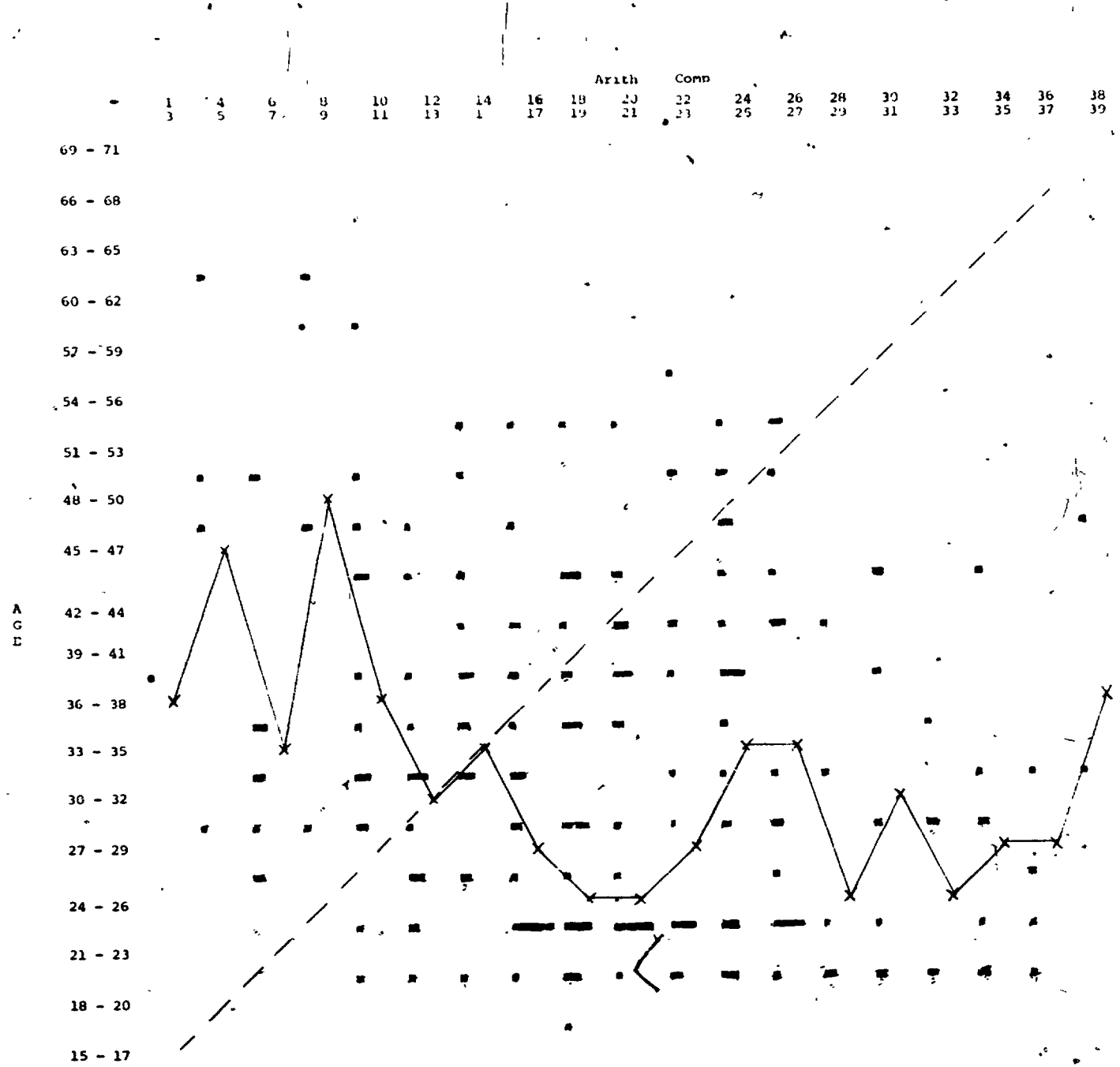
Scattergram #3 Age Vs Arithmetic Computation

The left hand column represents the ages of students in the study. The top horizontal column represents the raw score on the Arithmetic Computation section of the Stanford Test previously described.

In this case if the samples followed the dotted line, an increase of age would result in an increase of computation ability.

The solid line in this case has a tendency to flow from upper left to lower right diagonally. This would tend to indicate a correlation of higher computation scores resulting from a younger age. Two factors must, however, be considered: (1) The line is relatively horizontal to indicate little correlation. (2) Experience with scattergrams showing scores spread throughout the graph indicate poor correlation.

The degree to which a correlation exists could only be determined by calculating a correlation coefficient. This will not be done in this study. Our purose is to obtain a general idea regarding what factors appear to have significance.

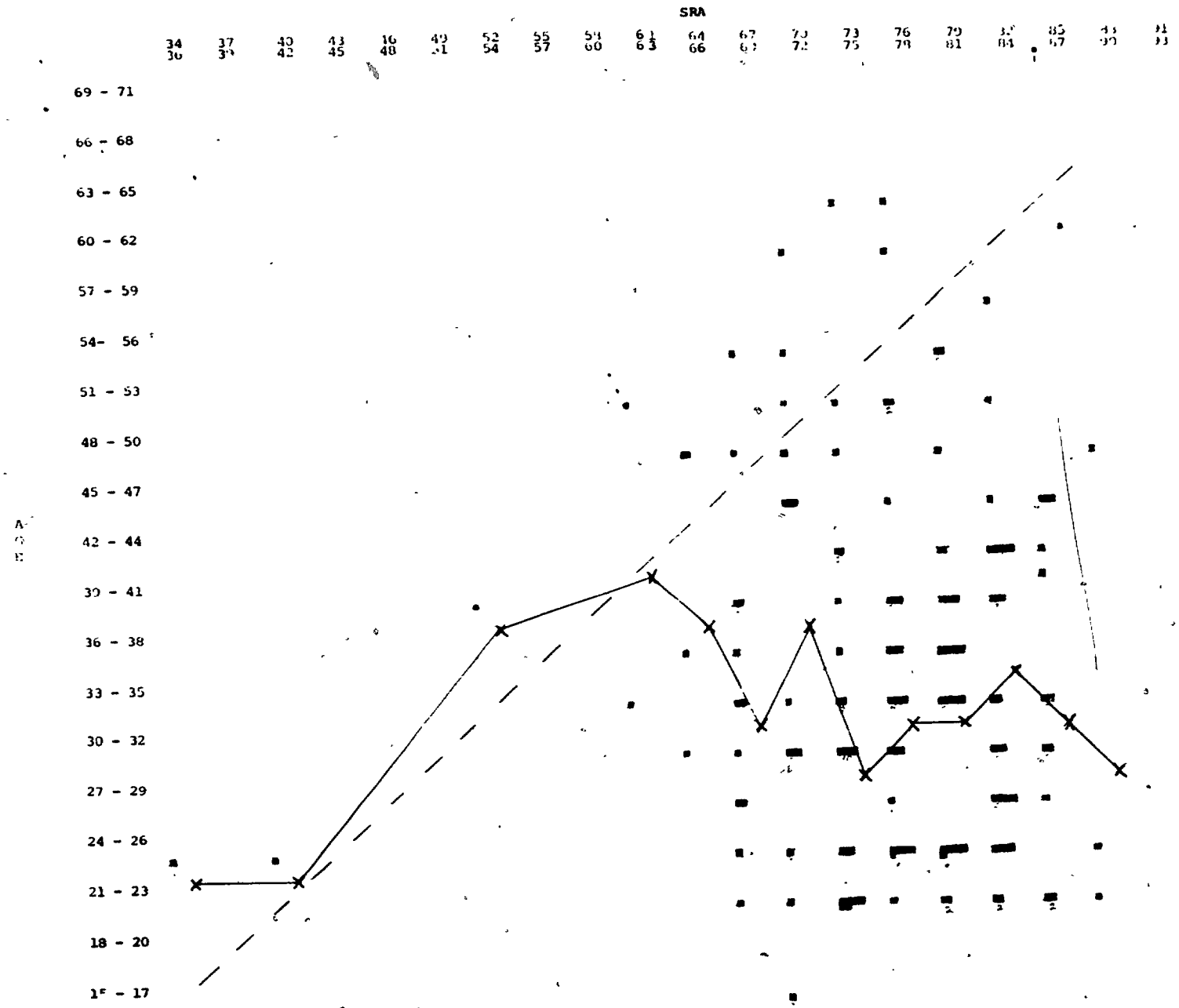

Arith
Comp
1 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38
3 5 7 9 11 13 1 17 19 21 23 25 27 29 31 33 35 37 39
69 - 71
66 - 68
63 - 65
60 - 62
57 - 59
54 - 56
51 - 53
48 - 50
45 - 47
42 - 44
39 - 41
36 - 38
33 - 35
30 - 32
27 - 29
24 - 26
21 - 23
18 - 20
15 - 17
AGE

Scattergram #4 Age Vs SRA

The left hand column represents the ages of students in the study. The top horizontal column represents the SRA reading test raw score. The dotted line represents the general area about which scores would cluster if increased age were directly proportional to increasing SRA scores.

Please note that samples below SRA scores of 64 are relatively insignificant. To read this graph we note the general tendency of the solid line within the area of larger samples.

Once again the plotted solid line tends to run horizontally and scores spread vertically. We would therefore conclude that there is no significant direct relationship between age and reading ability.


SRA
34 37 40 43 46 49 52 55 58 61 64 67 70 73 76 79 82 85 88 91
36 39 42 45 48 51 54 57 60 63 66 69 72 75 78 81 84 87 90 93
69 - 71
66 - 68
63 - 65
60 - 62
57 - 59
54- 56
51 - 53
48 - 50
45 - 47
42 - 44
39 - 41
36 - 38
33 - 35
30 - 32
27 - 29
24 - 26
21 - 23
18 - 20
15 - 17

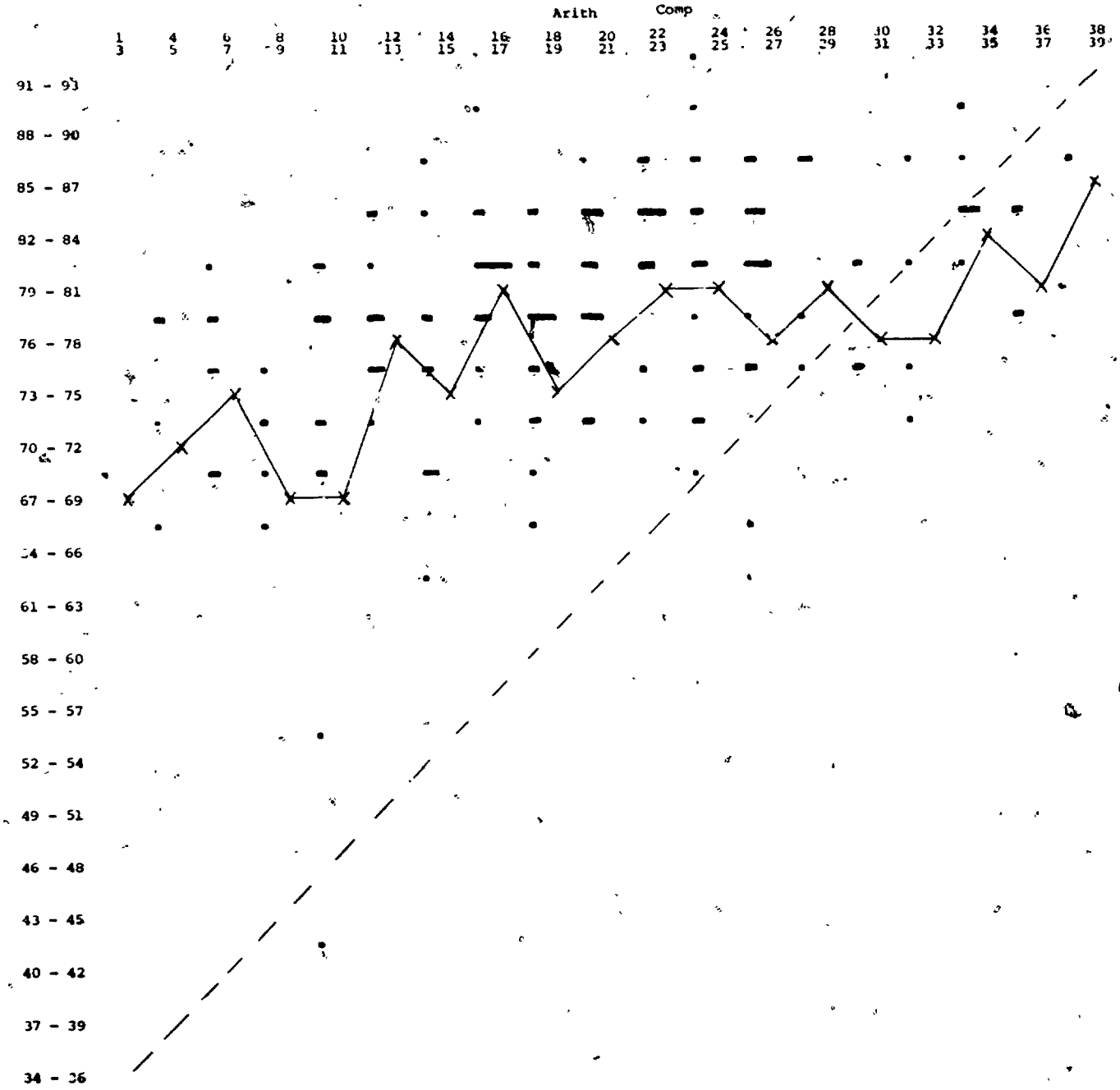
Scattergram #5 SRA Vs Arithmetic Computation

The left hand column represents the raw score obtained on the SRA reading test. The top horizontal column represents the raw scores on the Stanford Arithmetic Computation sub test.

In this case the dotted diagonal line would indicate a high correlation between reading and arithmetic computation if scores generally fell on or near it.

Note that there is a tendency for reading scores to increase with Arithmetic Computation. The plotted solid line has a high tendency to flow from lower left to upper right. Also note that the scores, in general, cluster diagonally from lower left to upper right.

One would therefore assume that a significant correlation exists between these two factors.


Arith
Comp
1 3
4 5
6 7
8 9
10 11
12 13
14 15
16 17
18 19
20 21
22 23
24 25
26 27
28 29
30 31
32 33
34 35
36 37
38 39
91 - 93
88 - 90
85 - 87
82 - 84
79 - 81
76 - 78
73 - 75
70 - 72
67 - 69
64 - 66
61 - 63
58 - 60
55 - 57
52 - 54
49 - 51
46 - 48
43 - 45
40 - 42
37 - 39
34 - 36
S R A

Scattergram #6 SRA Vs Arithmetic Reasoning

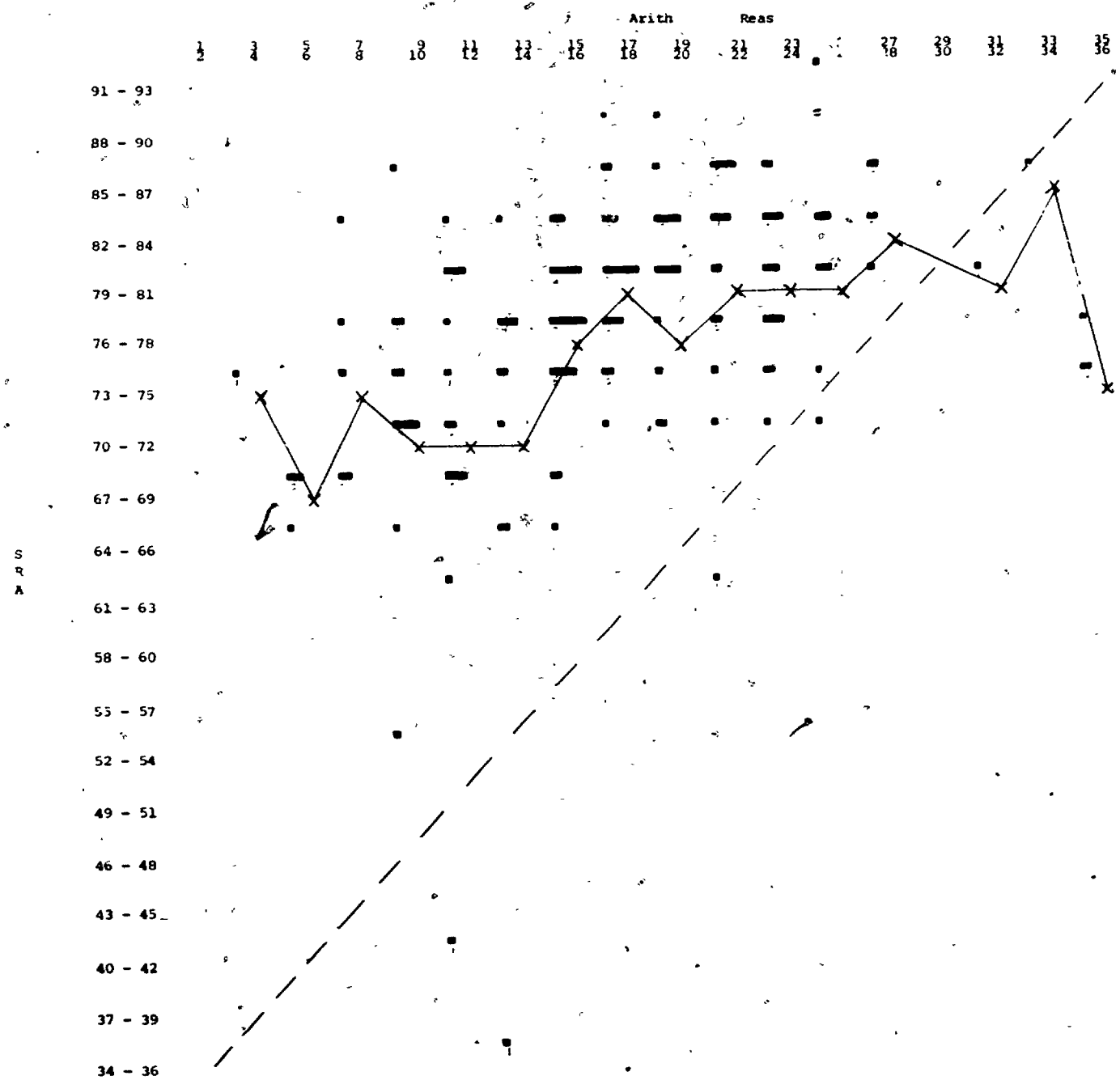
The left hand column represents the raw SRA reading score while the top horizontal column represents the Stanford Arithmetic Reasoning sub test raw score.

A dotted diagonal line from lower left to upper right is drawn to indicate the highest possible correlation between SRA reading and Arithmetic Reasoning.

The plotted solid line indicates a tendency for the two scores to show a high correlation. Also one should observe heavy grouping from lower left to upper right.

A conclusion that a high correlation exists between the two factors would not be erroneous.

One could probably disregard the left and right hand portions of the solid line due to the lack of sample scores.

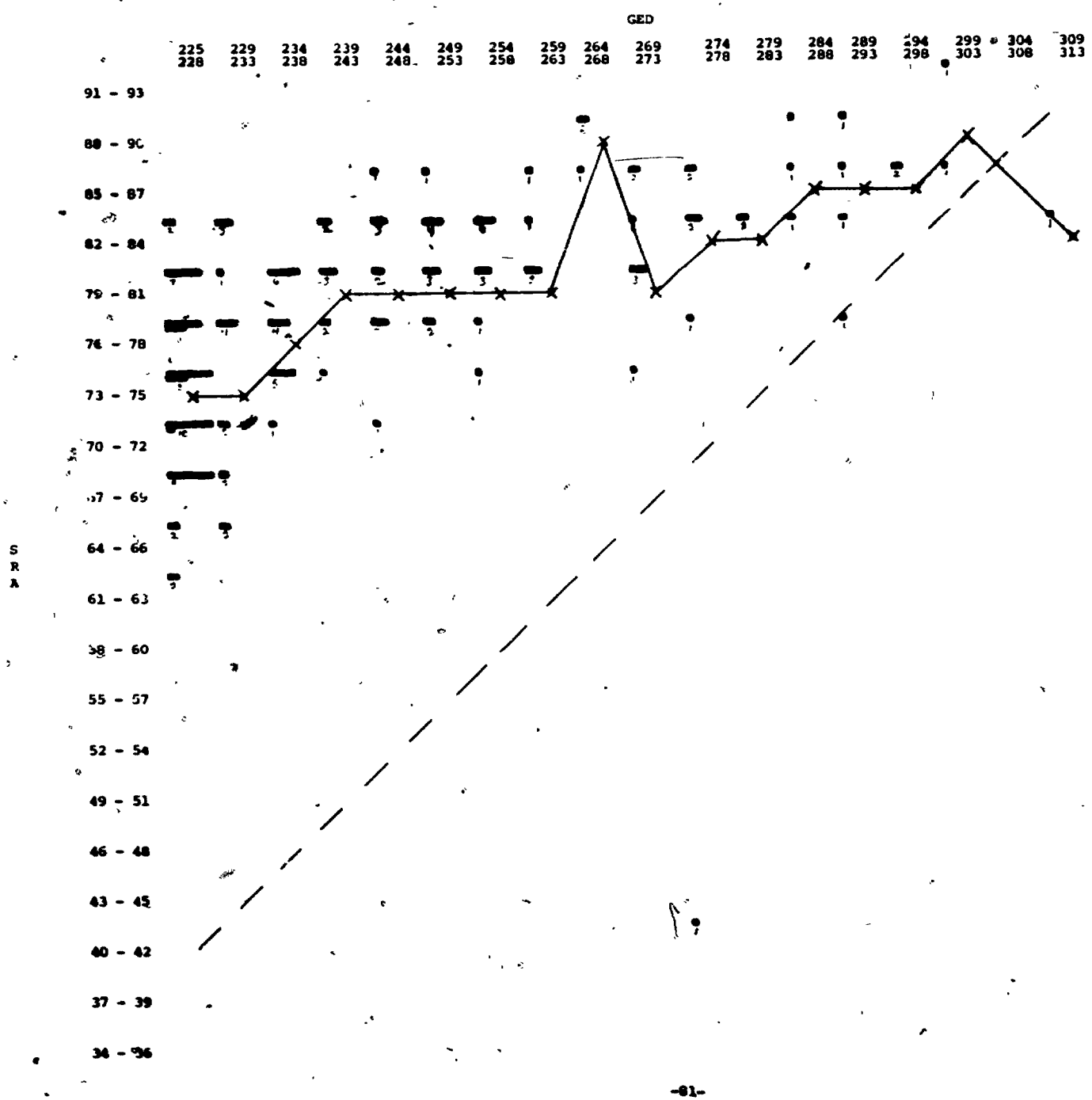

Arith
Reas
1 2
3 4
5 6
7 8
9 10
11 12
13 14
15 16
17 18
19 20
21 22
23 24
27 28
29 30
31 32
33 34
35 36
91 - 93
88 - 90
85 - 87
82 - 84
79 - 81
76 - 78
73 - 75
70 - 72
67 - 69
64 - 66
61 - 63
58 - 60
55 - 57
52 - 54
49 - 51
46 - 48
43 - 45
40 - 42
37 - 39
34 - 36
S
R
A

Scattergram #7 SRA Vs GED Scores

The left hand column again represents SRA raw reading scores while the top horizontal column represents GED standard scores. Again the dotted diagonal line is a visual representation of perfect correlation.

The plotted solid line indicates a tendency for the two scores to show a high correlation. Again one can observe heavy grouping from lower left to upper right as in the previous graph.

A conclusion that a high correlation exists between the two factors would be correct.

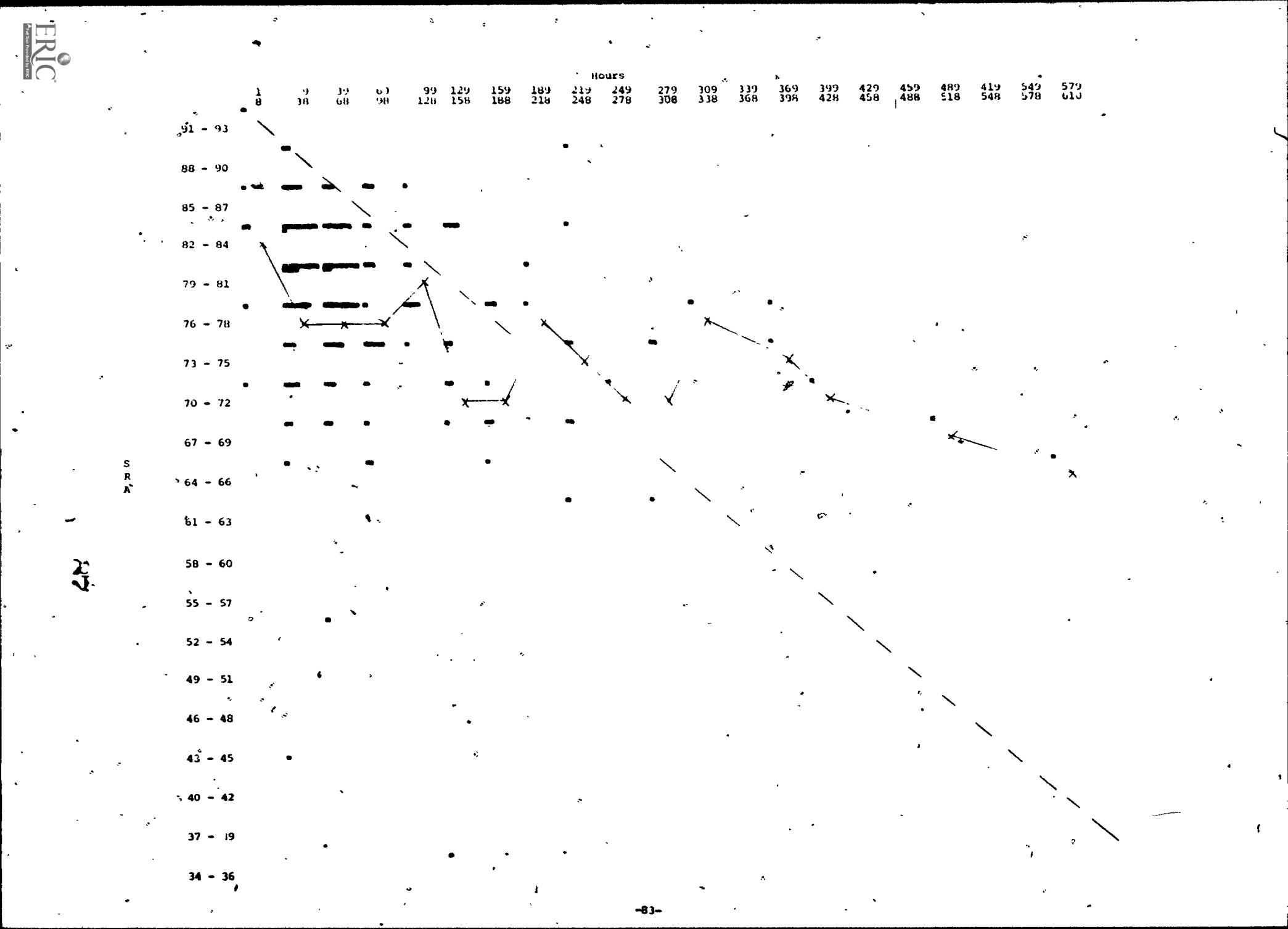

GED
225 228
229 233
234 238
239 243
244 248
249 253
254 258
259 263
264 268
269 273
274 278
279 283
284 288
289 293
294 298
299 303
304 308
309 313
91 - 93
88 - 90
85 - 87
82 - 84
79 - 81
76 - 78
73 - 75
70 - 72
67 - 69
64 - 66
61 - 63
58 - 60
55 - 57
52 - 54
49 - 51
46 - 48
43 - 45
40 - 42
37 - 39
34 - 36
SRA

Scattergram #8 SRA Vs Hours

The left hand column represents SRA raw reading scores while the top horizontal column represents the number of hours spent in class prior to completion of the GED exam. The dotted line indicates a theoretical perfect correlation between these two factors.

Consequently, if grouping follows the dotted line, the lower reading score would result in students spending more hours in study.

If one notes the plotted line, and total grouping, one observes that a correlation exists between the two factors. An assumption that a correlation exists would not be erroneous, however, the degree of correlation is now known but can be calculated.

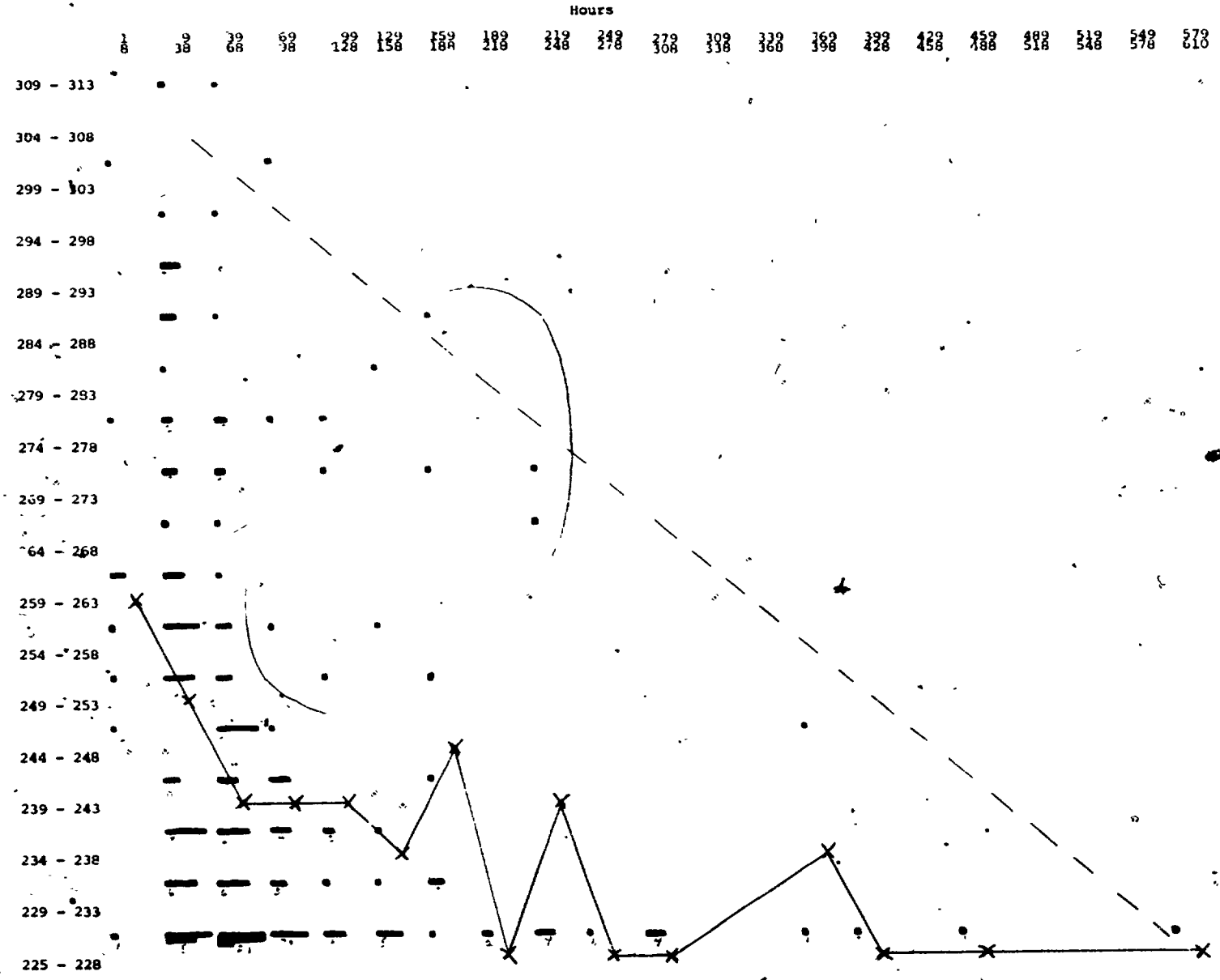

Hours
1 9 17 25 33 41 49 57 65 73 81 89 97 105 113 121 129 137 145 153 161 169 177 185
8 16 24 32 40 48 56 64 72 80 88 96 104 112 120 128 136 144 152 160 168 176 184 192
91 - 93
88 - 90
85 - 87
82 - 84
79 - 81
76 - 78
73 - 75
70 - 72
67 - 69
64 - 66
61 - 63
58 - 60
55 - 57
52 - 54
49 - 51
46 - 48
43 - 45
40 - 42
37 - 39
34 - 36
S
R
A

Scattergram #9 GED Vs Hours

The left hand column represents the total GED standard scores. The top horizontal column represents the number of hours spent in class prior to completion of the GED exam. The dotted line indicates a theoretically perfect correlation coefficient between the two factors.

By following the plotted solid line; there appears to be a correlation. The degree of this correlation is unknown. This would tend to show that the higher a person's score; the fewer number of hours would be needed to pass the exam.

Also note a group of scores showing a tendency towards grouping in the opposite direction. This might tend to indicate that those scoring above 249 on the GED who spend in excess of 59 hours gradually improve on the GED. This fact is circled and would require additional data.

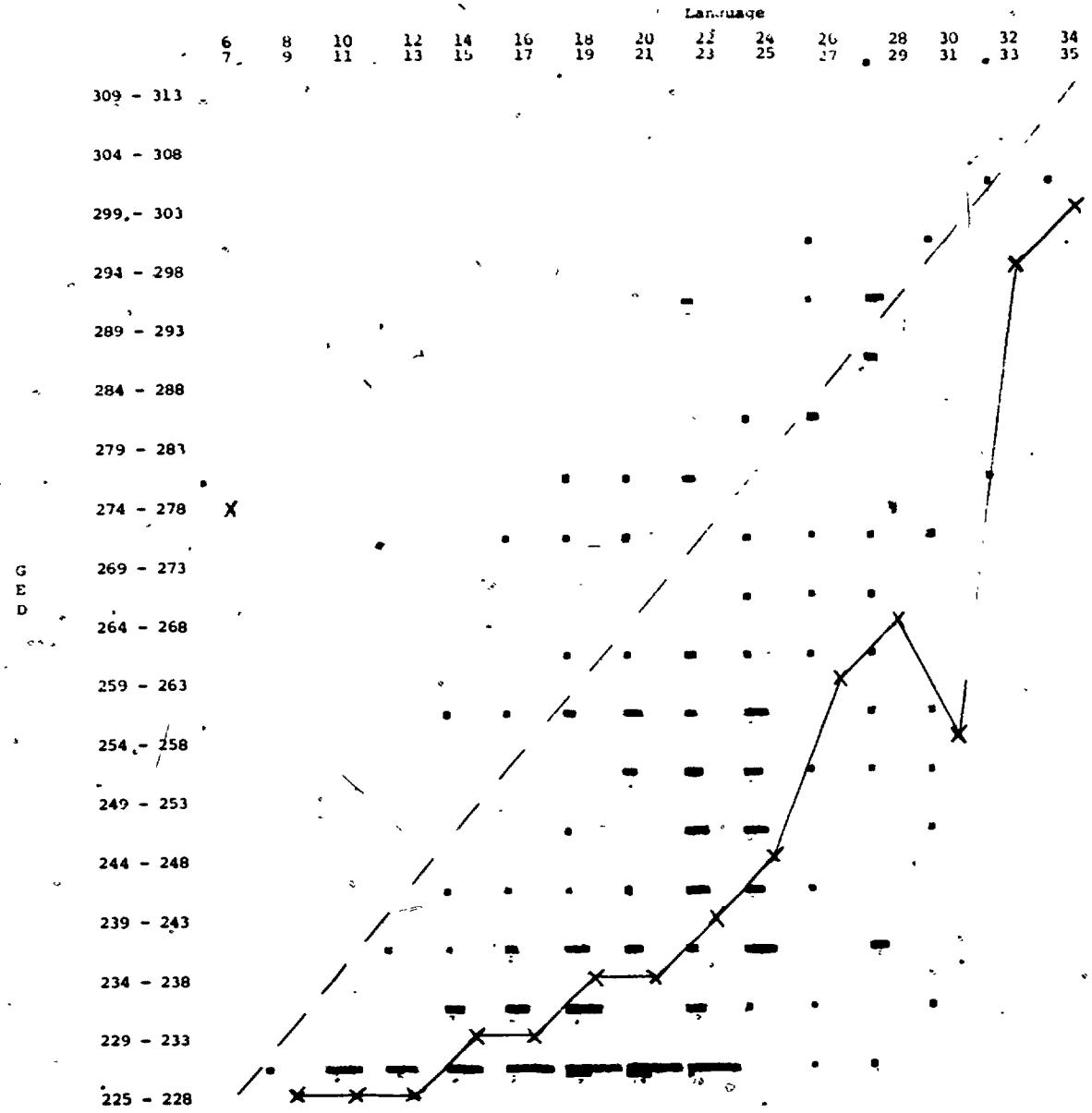

Hours
1 8
9 38
39 68
69 98
99 128
129 158
159 188
189 218
219 248
249 278
279 308
309 338
339 368
369 398
399 428
429 458
459 488
489 518
519 548
549 578
579 610
309 - 313
304 - 308
299 - 303
294 - 298
289 - 293
284 - 288
279 - 283
274 - 278
269 - 273
264 - 268
259 - 263
254 - 258
249 - 253
244 - 248
239 - 243
234 - 238
229 - 233
225 - 228
G
E
D

Scattergram #10 GED Vs Language

The left hand column represents the total GED standard scores. The top horizontal column represents the Language Usage raw score obtained from the Stanford Achievement Test. The dotted line indicates a perfect correlation between these factors.

Both the grouping and the solid plotted line appear to indicate a high correlation between the included data.

The assumption would then be that the higher one's Language Usage score; the higher one would score on the GED exam.

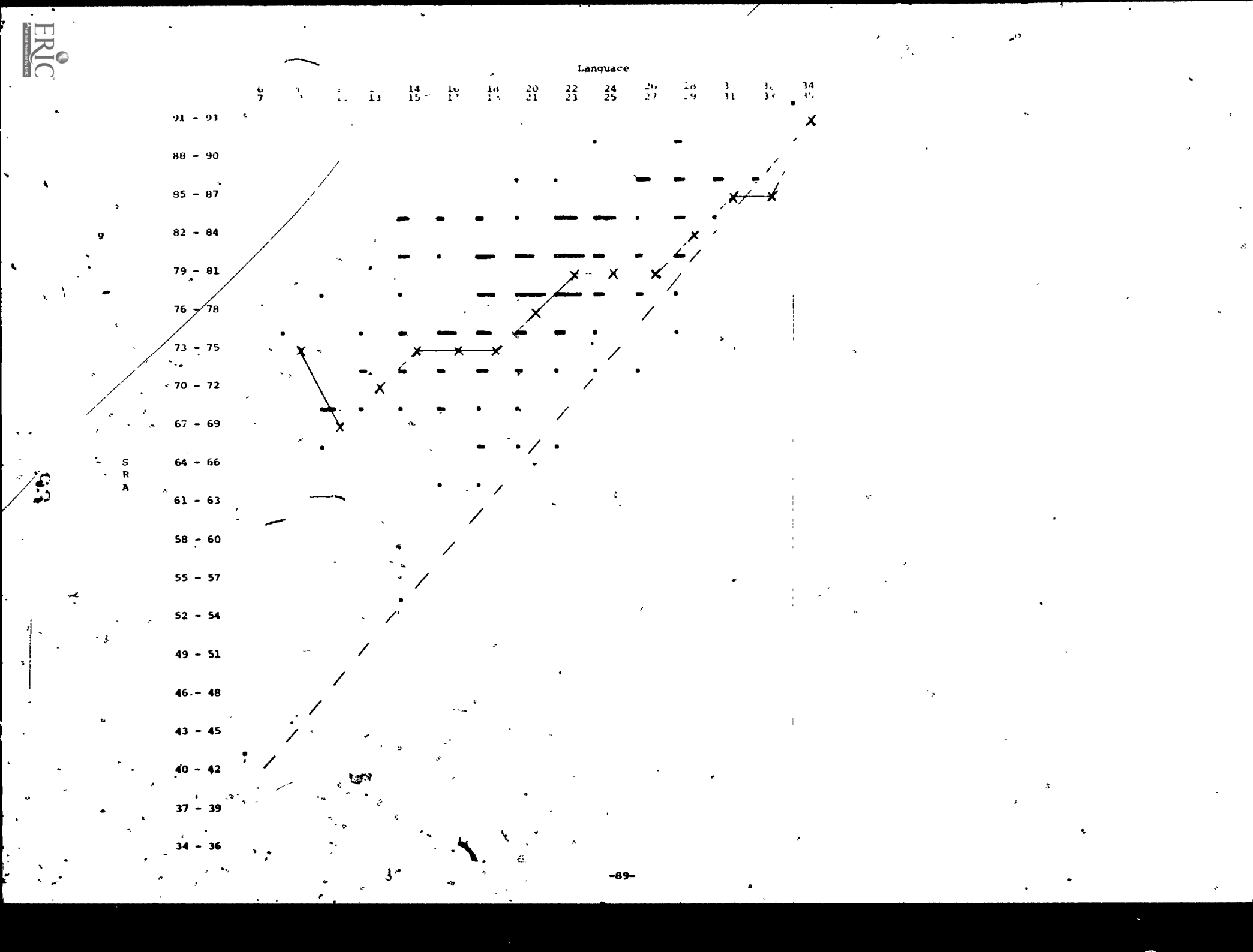

Language
6 7
8 9
10 11
12 13
14 15
16 17
18 19
20 21
22 23
24 25
26 27
28 29
30 31
32 33
34 35
309 - 313
304 - 308
299 - 303
294 - 298
289 - 293
284 - 288
279 - 283
274 - 278
269 - 273
264 - 268
259 - 263
254 - 258
249 - 253
244 - 248
239 - 243
234 - 238
229 - 233
225 - 228
G
E
D

Scattergram #11 SRA Vs Language

The left hand column represents the SRA reading test raw score, while the top horizontal column represents the raw score on Language Usage of the Stanford Test.

The plotted diagonal line represents a theoretical perfect correlation. Again both grouping and the plotted solid line indicate a significant correlation. In this case the correlation appears very high.

Of course, it would then follow that an ability in Language Usage would probably be nearly synonymous with reading comprehension.

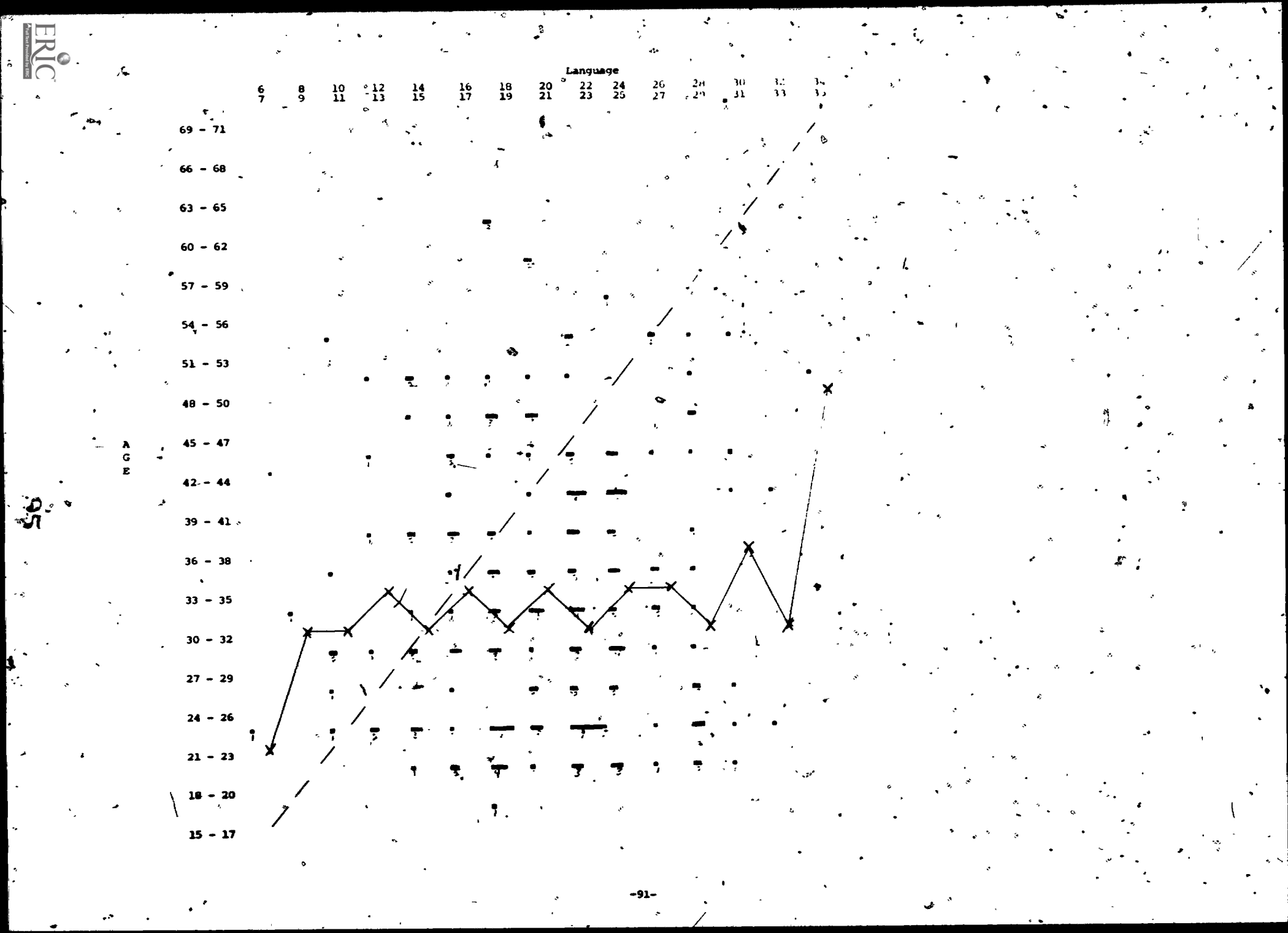

Language
91 - 93
88 - 90
85 - 87
82 - 84
79 - 81
76 - 78
73 - 75
70 - 72
67 - 69
64 - 66
61 - 63
58 - 60
55 - 57
52 - 54
49 - 51
46 - 48
43 - 45
40 - 42
37 - 39
34 - 36
S
R
A

Scattergram #12 Age Vs Language

The left hand column represents ages of students contained in the study. The top horizontal column contains the raw scores in Language Usage obtained by these same students.

A plotted dotted diagonal line would represent a perfect correlation for both factors if the scores fell on said lines.

The plotted solid line and the grouping of scores indicate that a correlation does not exist either positively or negatively between the factors of age and Language Usage.


Language
6 7
8 9
10 11
12 13
14 15
16 17
18 19
20 21
22 23
24 25
26 27
28 29
30 31
32 33
34 35
AGE
69 - 71
66 - 68
63 - 65
60 - 62
57 - 59
54 - 56
51 - 53
48 - 50
45 - 47
42 - 44
39 - 41
36 - 38
33 - 35
30 - 32
27 - 29
24 - 26
21 - 23
18 - 20
15 - 17

Summary

The original intent of this study was to attempt to discover what factors are important for passing the GED exam. We hoped to substantiate or disprove our observational beliefs gathered by experience. Working on this premise we hoped to uncover information that would assist us in helping adult students.

A secondary intent was to gather some evidence which might assist other programs while keying off additional studies that would delve deeper into cause and effect relationships of adult learning.

By no stretch of the imagination do we feel that we have solved any major problems of these adults. Only the surface has been scratched. We believe that the enclosed data are a beginning where information is difficult to find. A further study will be made on the same factors, as they relate to students who fail the GED exam.

Age tables have indicated where the preponderence of students will fall; grade tables then indicate the last year of school completed and numerical comparisons between grades. SRA reading and Paragraph Meaning pages also give us range and numerical considerations. Arithmetic computation and Reasoning tables indicate range and modal differences when compared with one another. We notice large frequencies on the lower portion of the range for GED scores and bi-modal peaks for hours spent in classes. Lastly we have charted Language Usage scores which resulted in a tendency towards a bell shaped curve. It is extremely interesting to note the small differences in GED scores when compared with last grades completed.

The authors will not speculate as to the causes of the frequency distributions, but we leave this to the reader. The reader may then couple this data with his own experience to form his own conclusion. It would be very interesting to gather counselors and teachers in a group to discuss the causes shown by these distributions.

Within the scattergrams we believe some proof exists that age is not relevant to GED success. Scattergram correlations on age were horizontal and scores were scattered.

The indication that an apparent high positive correlation exists between Reading and Arithmetic Computation was surprising to one author but not the other. The correlation between Reading and Arithmetic Reasoning, of course, was not surprising.

The highest correlation appears to exist between Language Usage and Reading.

The extent to which positive correlations exist should be calculated. This will, of course, not be done due to time. Our purpose was to locate possible correlations and later proceed with additional study.

We must always remember that the enclosed data can predict GED success for groups rather than for individuals. We have found that the psychology of a student is a predominant factor for GED success.