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ABSTRACT

This report on the Career Awareness for Secondary and Elementary Students (CASES) project describes the purpose and need for the testing instrument and the research and development stages of its preparation, and offers an analysis of findings. The test results are presented diagrammatically and discussed. Conclusions reached included: (1) the testing instrument indicated that students in the experimental group gained more career awareness information than those in control groups; (2) the slides contained in the testing instrument produced various degrees of confusion among students; and (3) the answer sheet required an excess amount of time to correct. Appendixes list the slides, student reactions to the slides, and posttest results. (NH)

ED 097513

FINAL REPORT ON
C.A.S.E.S. TESTING INSTRUMENT

Project No. V261001L
Grant No. OEG-0-72-1103

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May, 1973

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INTRODUCTION

The Sioux Falls Independent School District No. 1 received a grant from the U.S. Office of Education for the sum of \$35,594.00. The project was assigned the number V261001L and was titled "Research and Development Project in Career Education". The grant was authorized by P.L. 90-576, Title 1, Part C Sec. 131 (a). The period of the grant was designated from February 9, 1972 through August 8, 1973.

The project is under the local direction of Dr. Ken Gifford, Coordinator of Career Education for the Sioux Falls public schools. The pilot testing schools for this project have been Bancroft and Lincoln Elementary schools, and Whittier Junior High School.

The Sioux Falls Board of Education must grant approval of all projects which are to be conducted within the district. Approval was received for this project at the regular Board of Education meeting on March 13, 1972. At this time, for the purpose of the Sioux Falls district, the research and development project was given the title C.A.S.E.S. (Career Awareness for Secondary and Elementary Students).

PURPOSE OF TESTING INSTRUMENT

The purpose of the testing instrument used in the CASES project was to evaluate the effectiveness of the project by measuring the acquired career awareness knowledge of those students in the experimental groups as compared to the controlled groups.

NEED FOR TESTING INSTRUMENT

It is essential that a program, especially a pilot project, to have some form of testing device which will measure the effectiveness of the particular project. Only through a carefully structured evaluation system can a project be assessed to determine how adequately the objectives are being met.

It was assumed that all students grow in career awareness while being taught with the traditional curriculum. The testing instrument would measure the difference in career awareness growth by testing and then comparing the experimental groups to the controlled groups over a period of approximately eight months.

DELIMITATIONS

The use of the career awareness materials as written in the curriculum guide was not utilized after April 6, 1973. The purpose for this was to allow time for the necessary testing and return the results to each instructor so she would be able to discuss those results with her students.

No attempt was made to compare the 9th grade experimental group with a controlled group. The reasons for this were:

1. The amount of time required to administer the test would not allow adequate time to have the report finalized to meet the scheduled time period for filing reports as outlined in the proposal.
2. The amount of time required for the scoring of the tests was prohibitive since the computer was already working at capacity.

DEFINITIONS

CASES --- Career Awareness for Secondary and Elementary Students -
The program name given the research and development project for local purposes.

Pilot Schools --- Bancroft and Lincoln Elementary Schools, and Whittier Junior High School.

Testing Instrument --- A set of 14 slides (35mm) being used on the CASES project to measure the effectiveness of the project as outlined in the proposal.

Controlled Group --- Those students who were taught using the traditional curriculum. No additional emphasis was placed upon career or occupational information. The elementary control groups were grades 2,4, and 6 at Bancroft, and grades 1, 3, and 5 at Lincoln.

Experimental Group --- Those students who, in addition to the traditional curriculum, were exposed to the career information and activities as outlined in the CASES guide. The experimental groups were grades 1, 3, and 5 at Bancroft, grades 2, 4, and 6 at Lincoln, and the 9th grade at Whittier.

RESEARCH AND DEVELOPMENT

Research of Previous Testing Instruments:

During the 1972 summer workshop, considerable effort was made in researching the field to determine what kinds of testing instruments had been developed. The success in finding available information was very limited. There seemed to be a greater supply of information for the secondary level, but only a small amount for the primary and intermediate levels. Several districts around the country are in the process of developing various forms of tests and measuring instruments. However, none of which seemed to apply themselves to the objectives of the CASES project.

It was the intent of the CASES staff to develop an instrument which would enable any school district to measure the effectiveness of its career education program at all levels, primary through secondary.

Development of CASES Instrument:

While evaluating the materials collected in the research, it was found that Dr. Richard Nelson, Professor of Counseling and Guidance, Purdue University, had worked on a form of testing instrument which utilized a series of 35mm slides. Each slide was depicting a particular job or occupation. It was from Dr.

Nelson's original concept that the CASES testing instrument was finally developed.

The CASES testing instrument consisted of fourteen (14) 35mm slides, one each representing the job clusters as described by the U.S. Office of Education. The U.S. Office categorizes all occupations into 15 clusters. The cluster that was not represented in the CASES testing instrument was "Marine Science". The reason for omitting the marine science cluster was that there are very few career opportunities in South Dakota or the surrounding states which would relate to the marine sciences. The omission of this cluster has been criticized by some people, therefore it will be carefully reviewed during the revision of the instrument during the summer workshop.

Each of the pictures were taken within the city limits of Sioux Falls and were taken of a particular individual while he was performing the duties of that job. For a list of the job clusters and the picture it represented, see Appendix A. The slides represented a cross section of America's work force, including women and minority groups.

Following the selection of the slides to be used in the testing instrument, the problem of developing an answer sheet became apparent. After much discussion and experimentation, the staff agreed upon a single answer sheet which could be utilized by students all the way from grade one through grade nine (see Appendix B).

The answer sheet was designed to obtain student responses to the following questions:

1. "WHO AM I" - the students were to identify the name of the occupation, such as "nurse" or "bricklayer".
2. "WHAT DO I DO" - the students were to briefly describe what the person does while performing his job, such as: "assists doctors in a hospital", or "lays bricks and cement blocks".
3. WOULD YOU LIKE TO HAVE MY JOB - WHY? - the students were given a choice of three answers to circle: (a) YES (b) NO (c) NOT SURE. If the student circled "YES" or "NO", he would then indicate "WHY" he would or would not want to have that job. If "NOT SURE" was circled, the space was left blank.

Testing Procedures:

It was determined that a pre test and a post test would be given to all students in the elementary pilot schools and the 9th grade students at the junior high pilot school. The pre testing was given from September 11 - 20, 1972. During this time, 704 elementary students and 364 ninth grade students were tested. Of those 704 elementary students tested, 326 were in the experimental groups and 378 were in the controlled groups. All 364 ninth grade students were in the experimental group.

The experimental groups at the elementary levels consisted of grades 1, 3, and 5 at Bancroft, and grades 2, 4, and 6 at Lincoln. This meant that approximately one-half of the student body in each school would serve as the experimental group.

The test was given to one class or section at a time, which usually consisted of approximately 20 to 28 students. Prior to administering the test, careful instructions were given to the class concerning the correct procedures to follow when filling out the answer sheet. It took approximately 30 minutes for each class to complete the test. The teacher was not allowed to remain in the classroom during the showing of the slides. The reason for this was to prevent any instructor from teaching toward the particular slide, thus destroying the objective of the instrument. Caution was also taken to have students be very careful not to talk about the test to other students, keep answer sheets covered up during the test, and not to talk above a whisper. The test was given to intermediate grades (4-6) first, followed by the primary grades (1-3). The purpose of scheduling the classes in that order was to use the intermediate grade students as "aides" for the primary students. Since the primary students could not read or write as the test instrument required, each student was assigned an aide. As the slide was then shown on the screen, the primary student would whisper his answers to the aide, who would then record it on the answer sheet. Each of the aides were carefully chosen and instructed not to show any emotion which may help the primary students. This system proved to be very successful and was used on both the pre test and the post test.

After the tests were completed, the answer sheet were scored.

A numerical score was given to the first two questions on each slide. The third question was not scored since it was a subjective answer on the part of the student. The scores received on each question ranged from 0 through 3. For an example of possible scoring for slide No. 1 on the question "WHO AM I", see Appendix A.

Following the scoring of the answer sheets, the information was delivered to the data processing department of the Southeast Area Vocational School. From the data processing department, the following information was obtained:

- A. Individual student score of each slide on the questions "WHO AM I" and "WHAT DO I DO".
- B. Combined score total for each student on the questions "WHO AM I" and "WHAT DO I DO".
- C. Value score indicating the percentage of correct answers (received a score of 3) each student received on the questions "WHO AM I" and "WHAT DO I DO".
- D. An average of value scores (percentage of correct answers) for girls vs. boys in the different grade levels.
- E. A comparison of scores received by experimental groups as compared with the controlled groups.

A sample print-out sheet from the data processing is included in this report (see Appendix C). The sample print-out sheet indicates the results on items A and B described above. A complete and detailed analysis of items A through E will be outlined in the Figures and Tables which follow in this report.

The post test was given on April 9-20, 1973. The same testing procedures were followed as in the pre test. The teacher

was then encouraged to view the slides with the students, thus enabling her to more adequately evaluate the forth-coming results. The post tests were scored and compiled in the same manner, including the use of the computer facilities at the Southeast Area Vocational School.

ANALYSIS OF FINDINGS

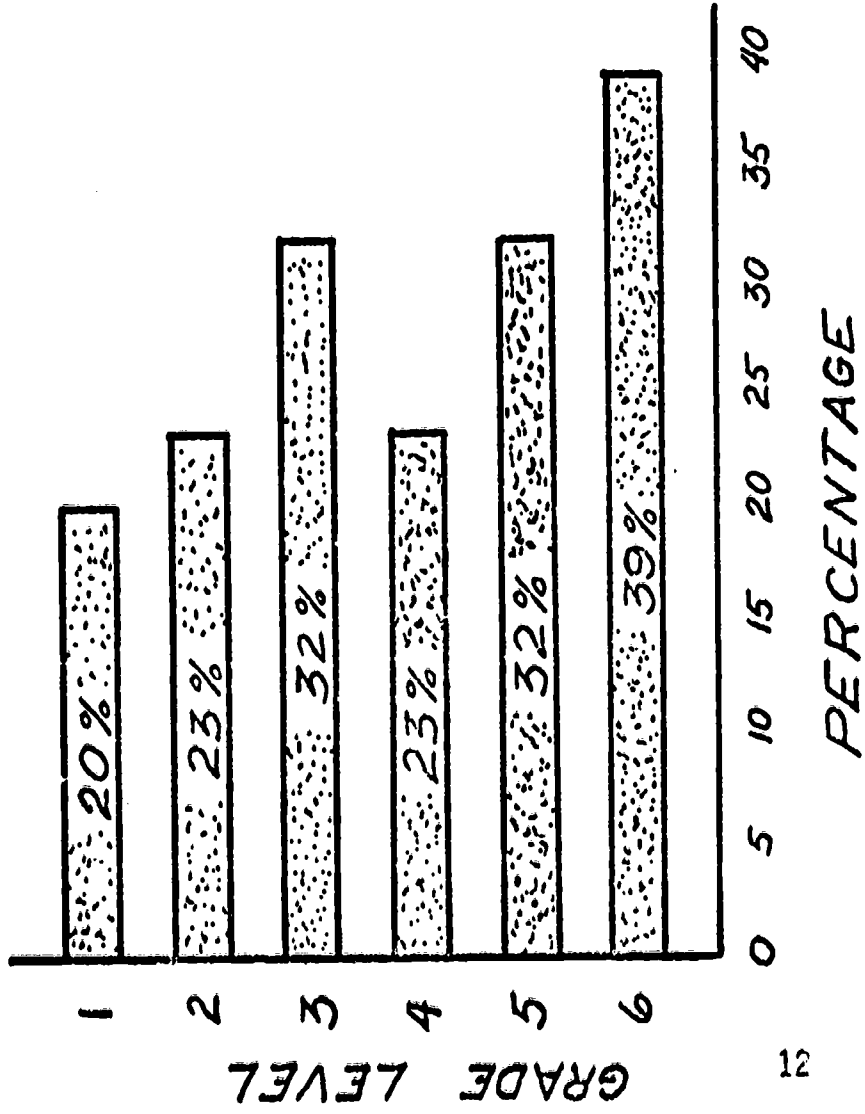
Elementary School Pre Test Results:

Figures 1 through 6 are graphic examples of the pre test results and Figures 7 through 12 represent the post test results and the final comparisons.

Figure 1 shows a comparison by grade level of the two pilot schools on the percentage of correct answers received on the question "WHO AM I". The students are identifying the names of the various jobs or occupations by answering this question. As would be assumed, the higher the grade level, the more aware each child is about careers and occupational information. Bancroft students showed a continual growth in awareness from grade one through grade six. Lincoln students also showed continued growth with the exception of the fourth grade, where a lesser amount of awareness was demonstrated as compared with the third grade.

Figure 2 shows a comparison by grade level of the two pilot schools on the percentage of correct answers received on the question "WHAT DO I DO". Here the students are describing the type of work that the various occupations require. The graphs show that the amount of awareness in the area differs considerably between the two schools. The reason for this difference is not known at this time, however, several factors could play a major role as will be described later in the report.

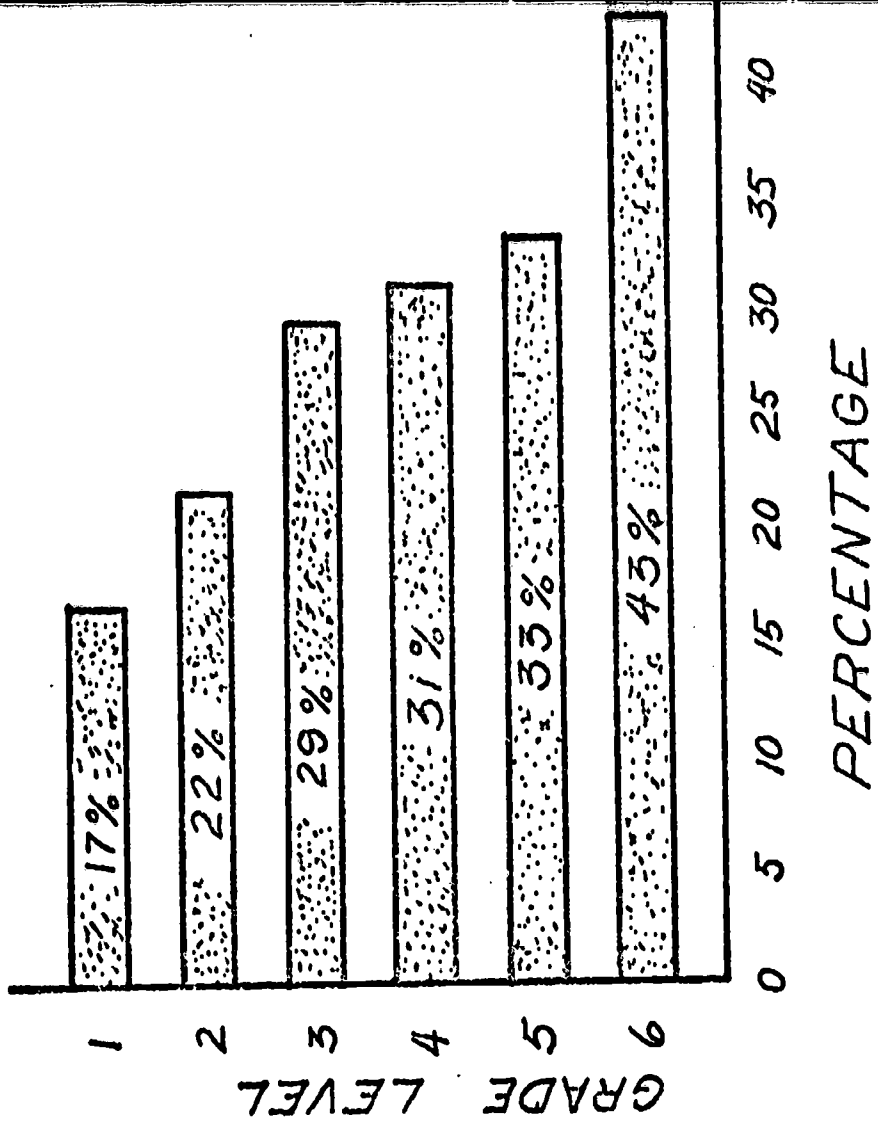
Figure 1



LINCOLN

PERCENT CORRECT ANSWERS

"WHO AM I" PRE - TEST

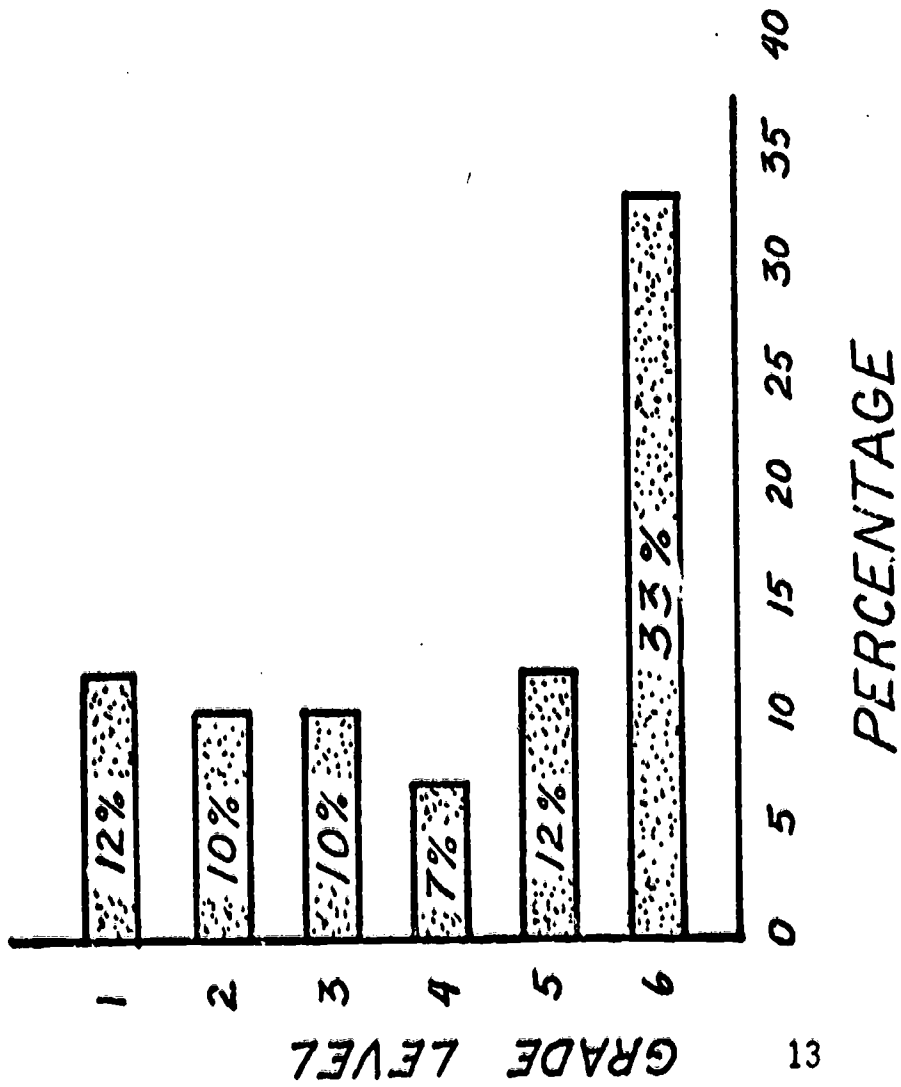


BANCROFT

PERCENT CORRECT ANSWERS

"WHO AM I" PRE - TEST

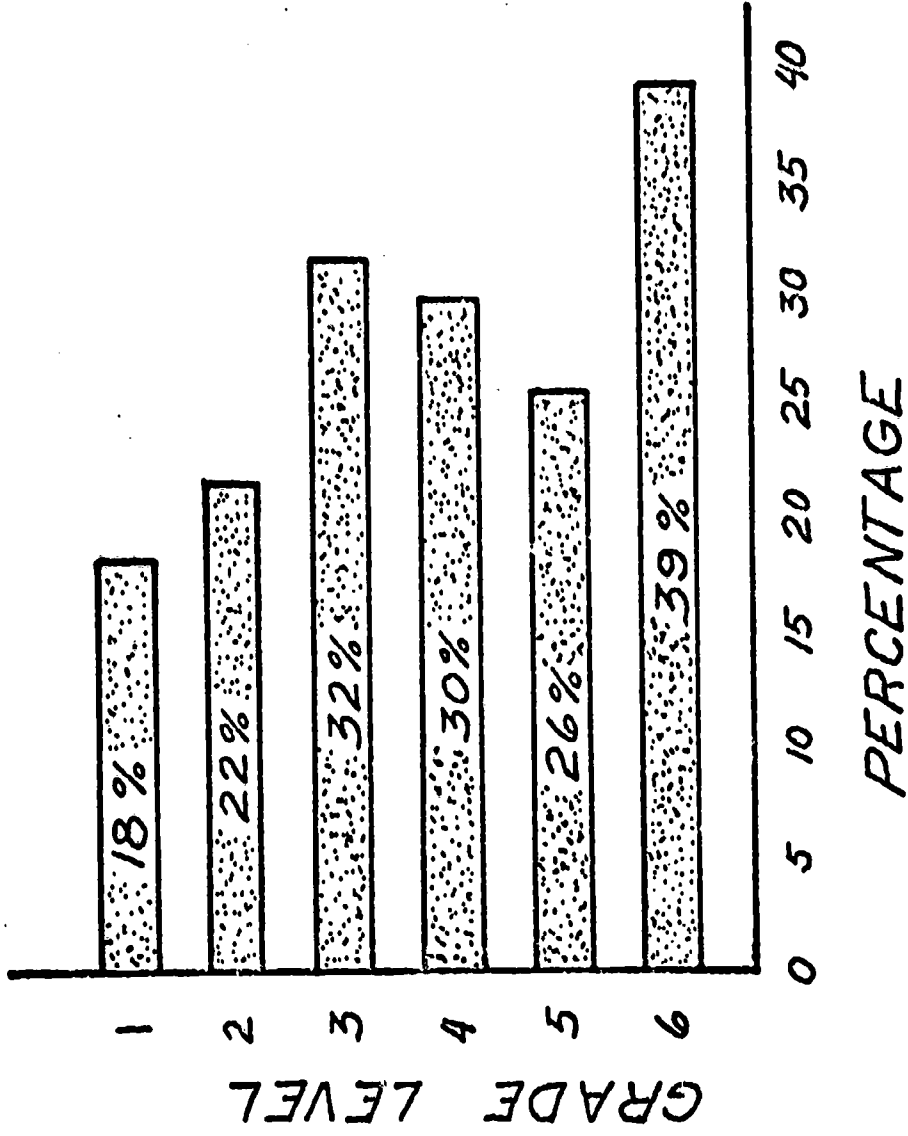
Figure 2



LINCOLN

PERCENT CORRECT ANSWERS

"WHAT DO I DO" PRE-TEST



BANCROFT

PERCENT CORRECT ANSWERS

"WHAT DO I DO" PRE-TEST

The results of Figures 1 and 2 would seem to indicate that the students at Bancroft were more aware of the various occupations and the type of work required for each occupation than those students at Lincoln.

It has been said by many educators and psychologists that most girls mature faster than do boys. This is true in physical, emotional, and social growth. If those statements are true, we could assume that girls would have a better understanding of career information than do boys. Figures 3 and 4 would tend to substantiate that assumption.

Figure 3 graphically shows that with only 2 exceptions, 6th grade at Lincoln and 4th grade at Bancroft, the girls are more aware of occupational titles than are boys. Figure 4 shows that in grades two and three at Lincoln and grades four and five at Bancroft the boys are more aware of the type of work a particular job requires.

The trend of girls being more aware of career information seemed to begin to reverse itself as the grade level increased. Figures 5 and 6 explain the pre test results for the 9th grade classes at Whittier Junior High.

9th Grade Pre Test Results:

The 9th grade classes took the same pre and post test as did the elementary students. The same answer sheets were used and were scored in the same manner.

Figure 3

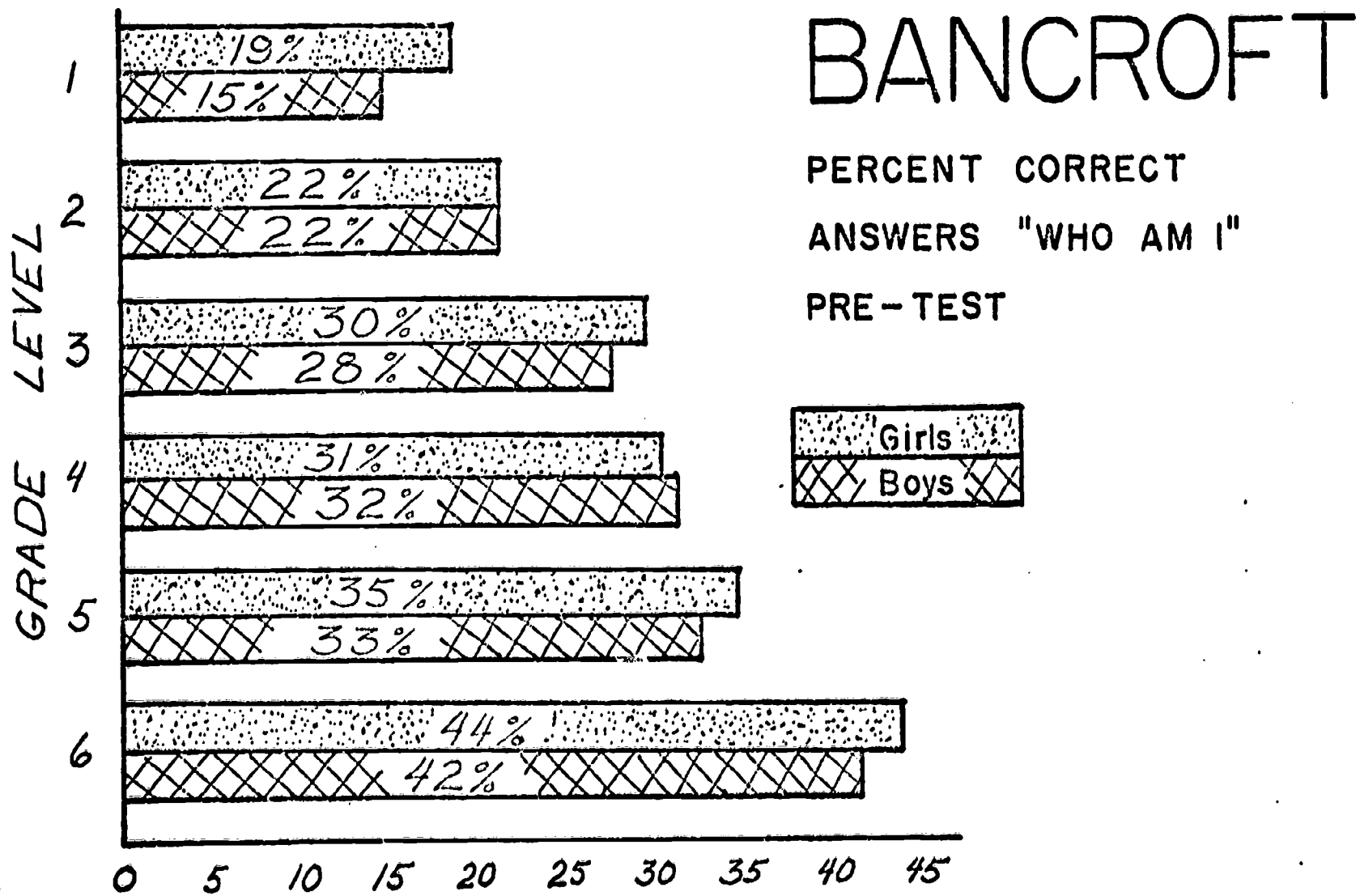
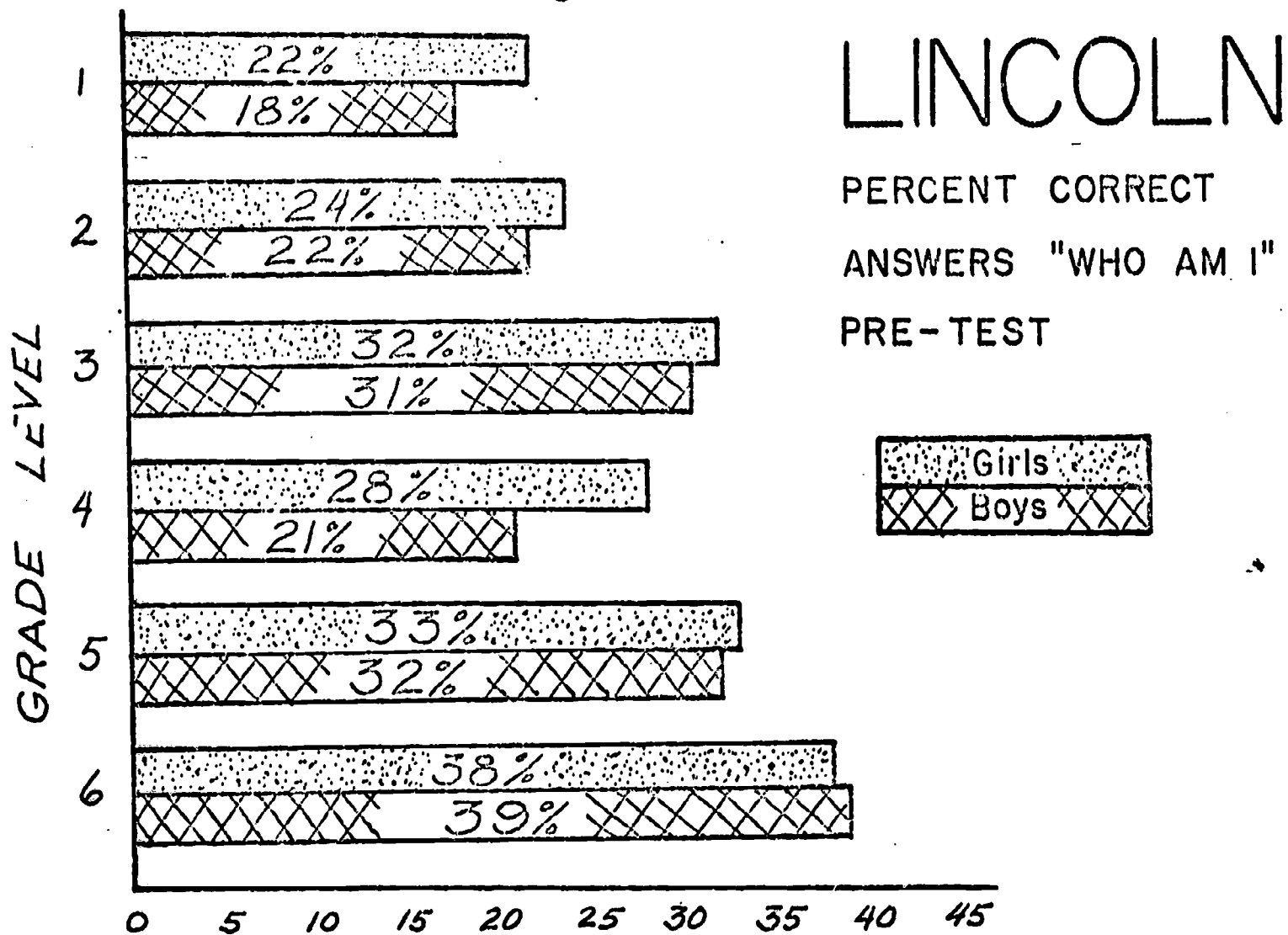


Figure 4

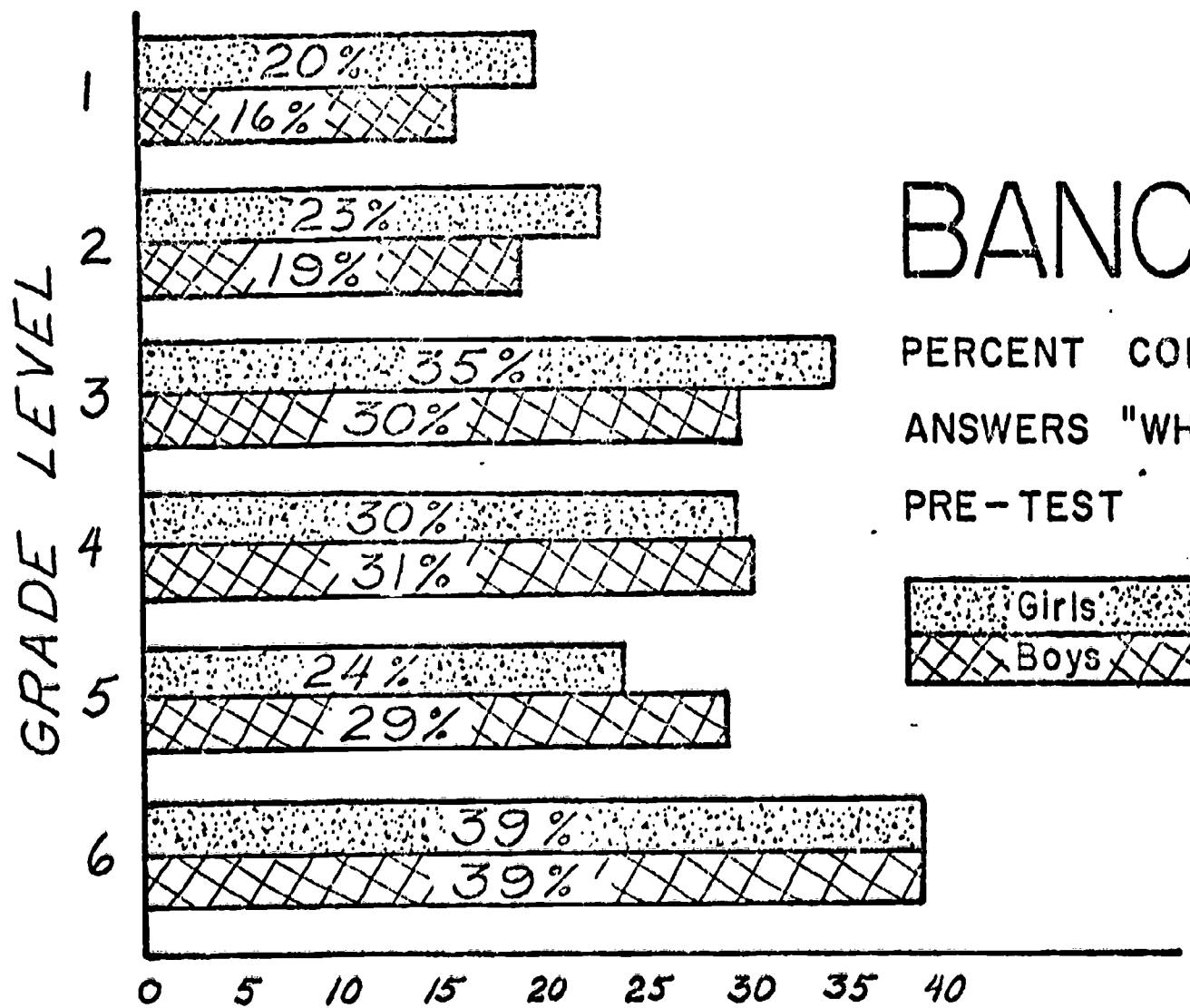
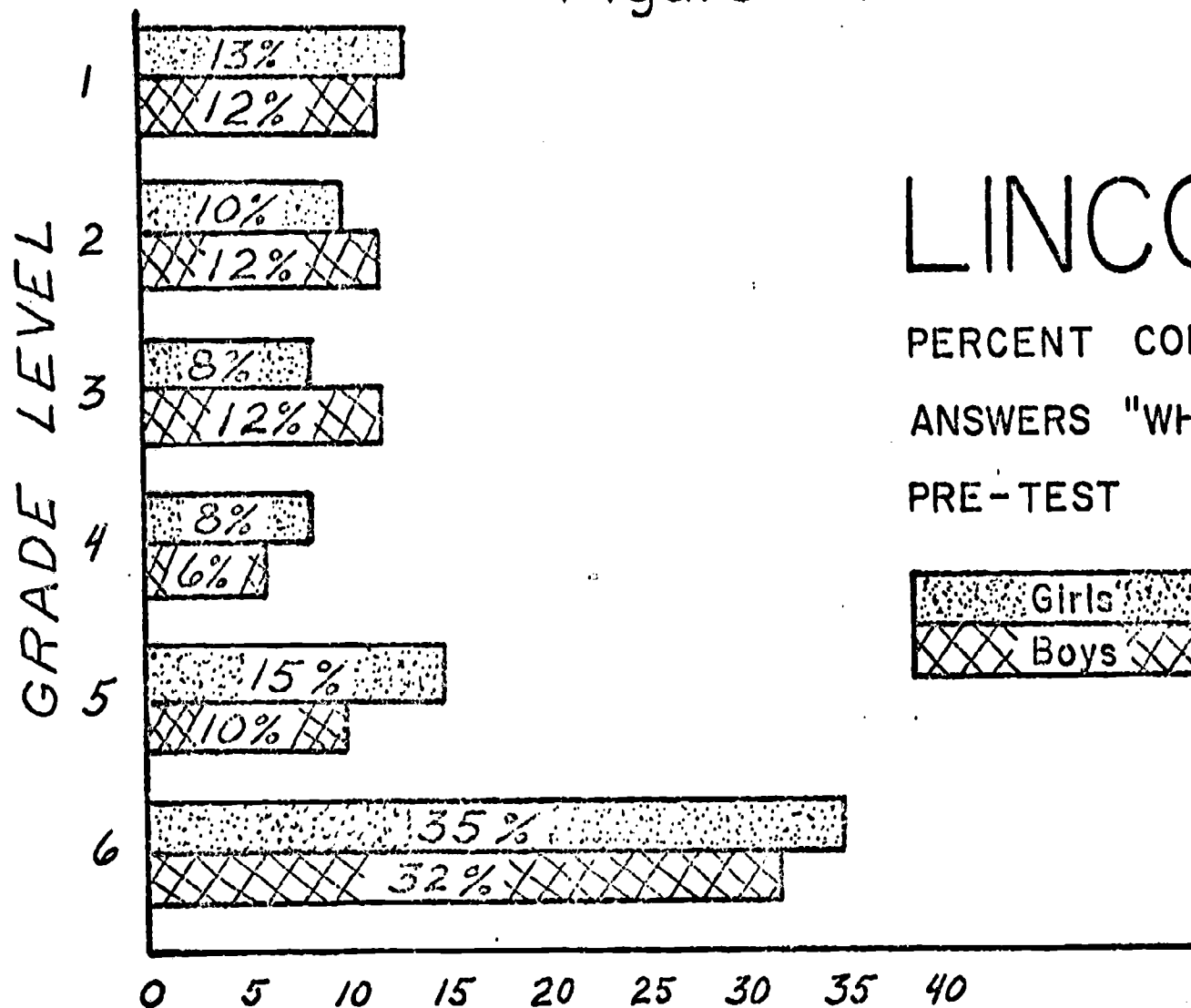


Figure 5 shows the average percent of correct answers by the Civics Period for both questions of "WHO AM I" and "WHAT DO I DO". It was expected that the results would be considerably higher than in the elementary grades, and this graph shows that to be true.

Figure 6 shows the average percent of correct answers by each class comparing the girls with the boys. It varies from one class to another but generally speaking the girls and boys have the same degree of career awareness at the 9th grade level. The final tabulation of the pre test indicated that both the girls and the boys had an average of 47.4% score on the question of "WHO AM I", and on the question "WHAT DO I DO", the boys averaged 48.3% while the girls averaged 49.4%.

Elementary School Post Test Results:

Figure 7 demonstrates with the use of a line graph, the difference between scores received on the pre test and those received on the post test for the question "WHO AM I". Here again, the score received represents the average percent of correct answers for each question. As expected, there was a substantial gain in the career awareness growth.

Figure 8 illustrates the difference between the pre test and the post test for the question "WHAT DO I DO". It is apparent here that students still have some confusion concerning what a

WHITTIER 9th - CIVICS

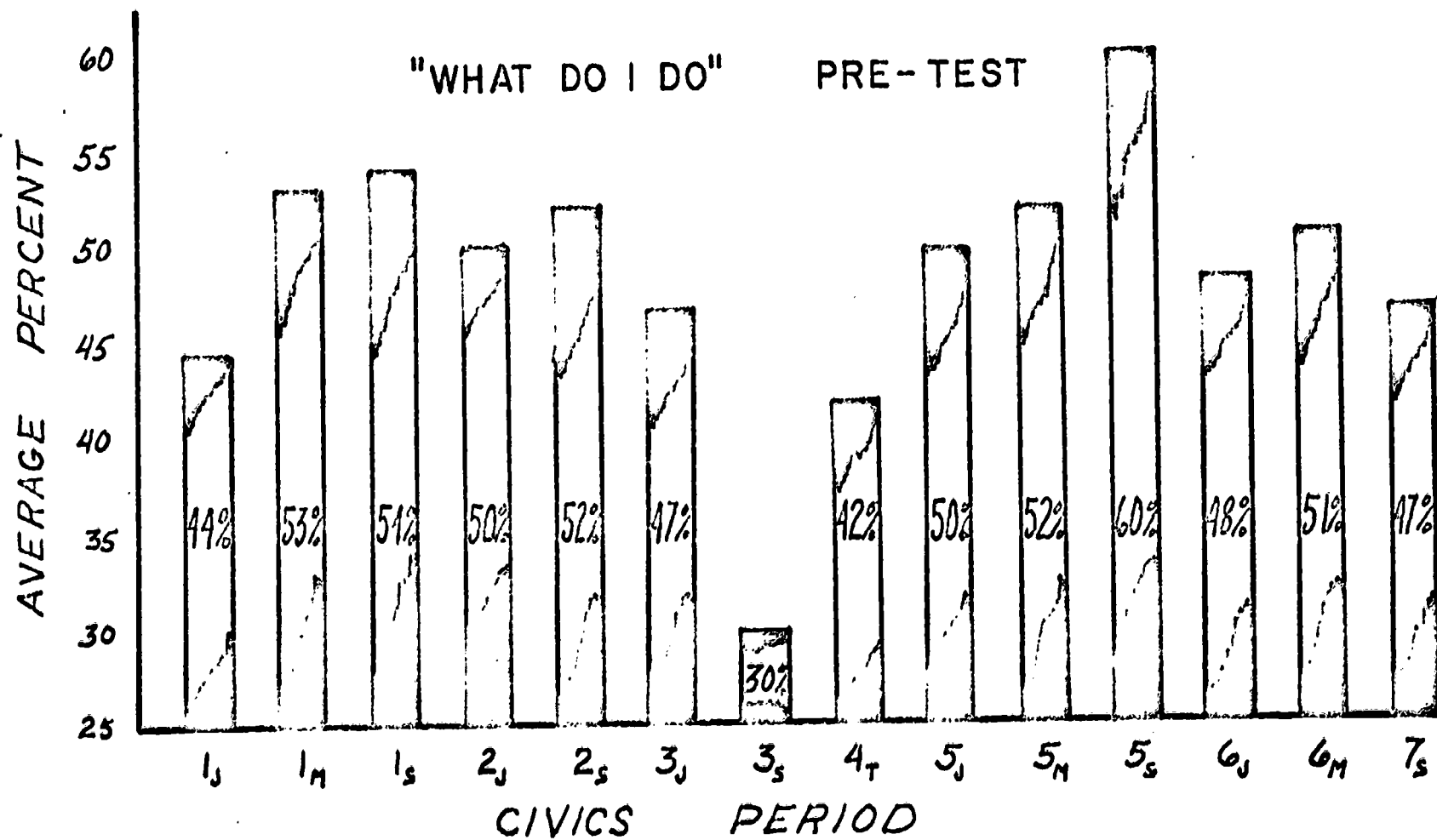
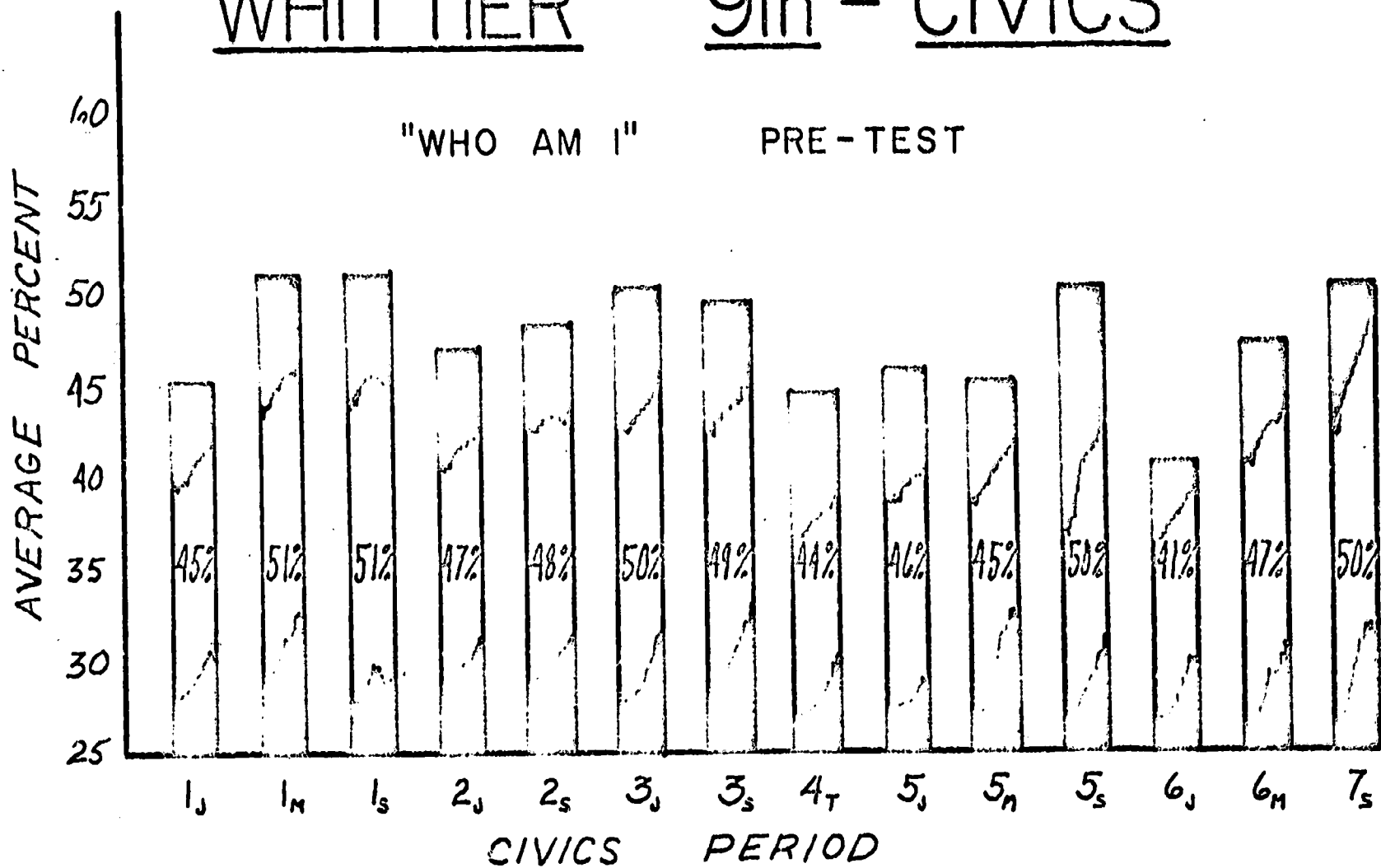


FIGURE 6

WHITTIER 9th - CIVICS

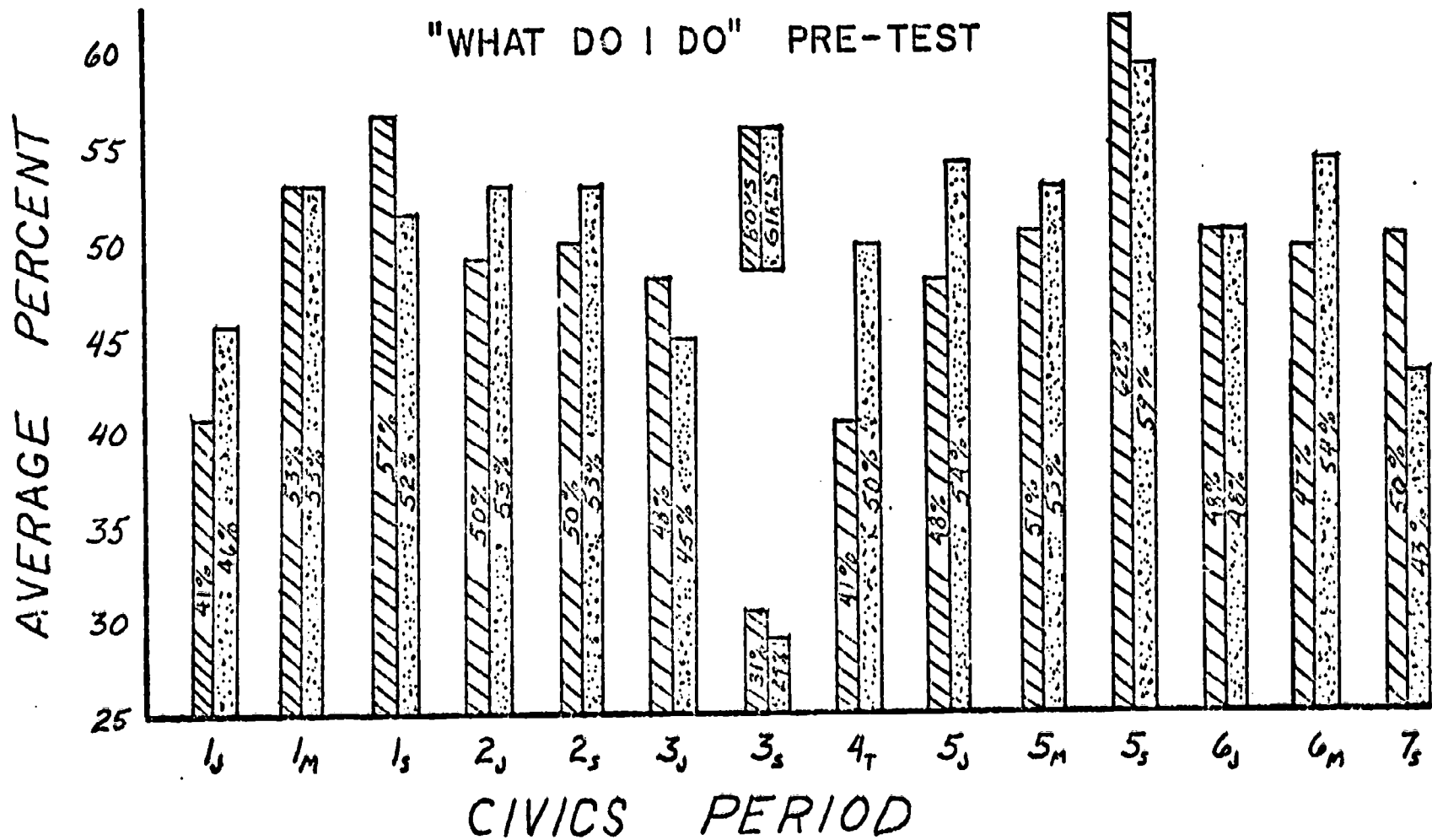
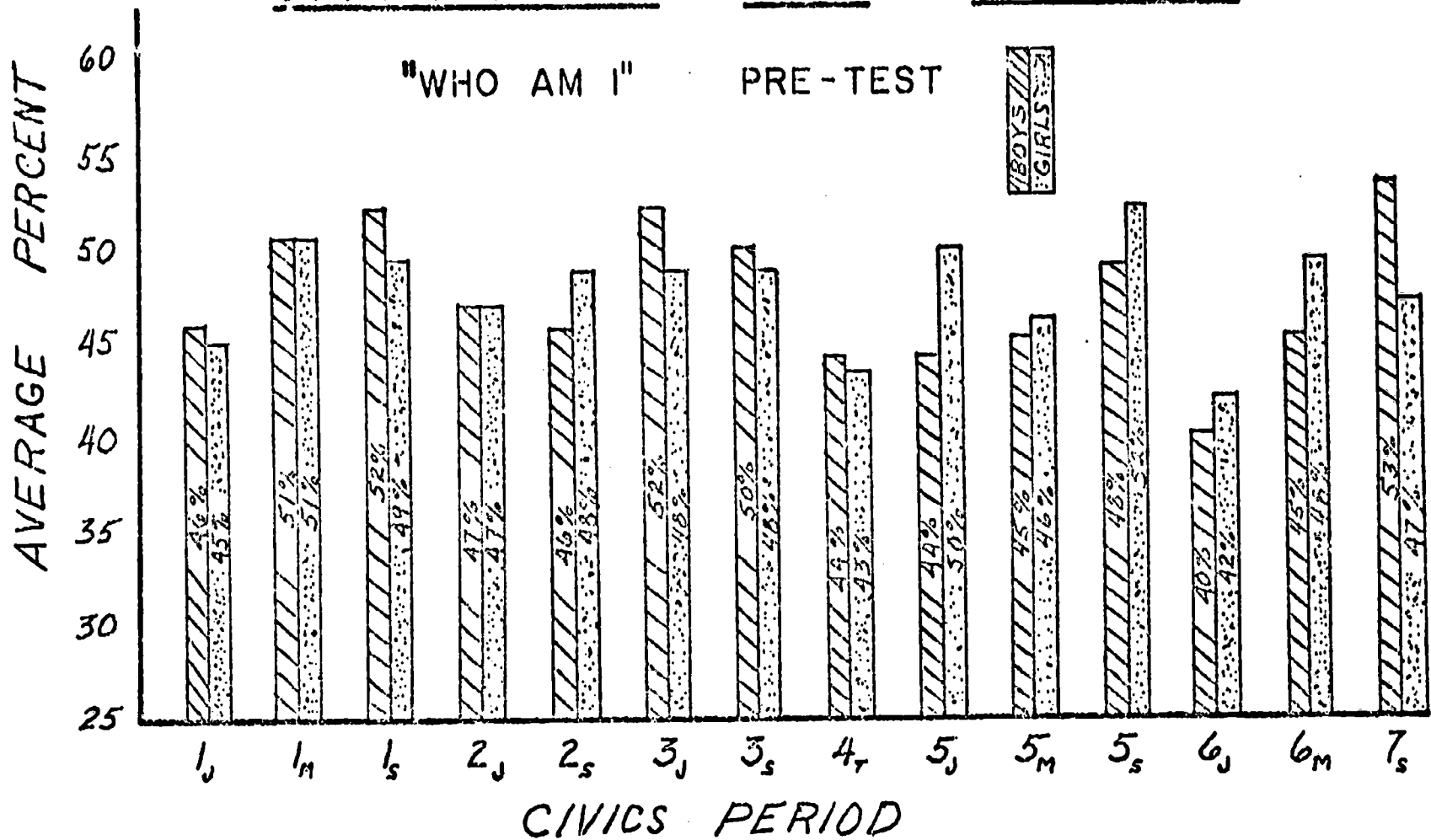
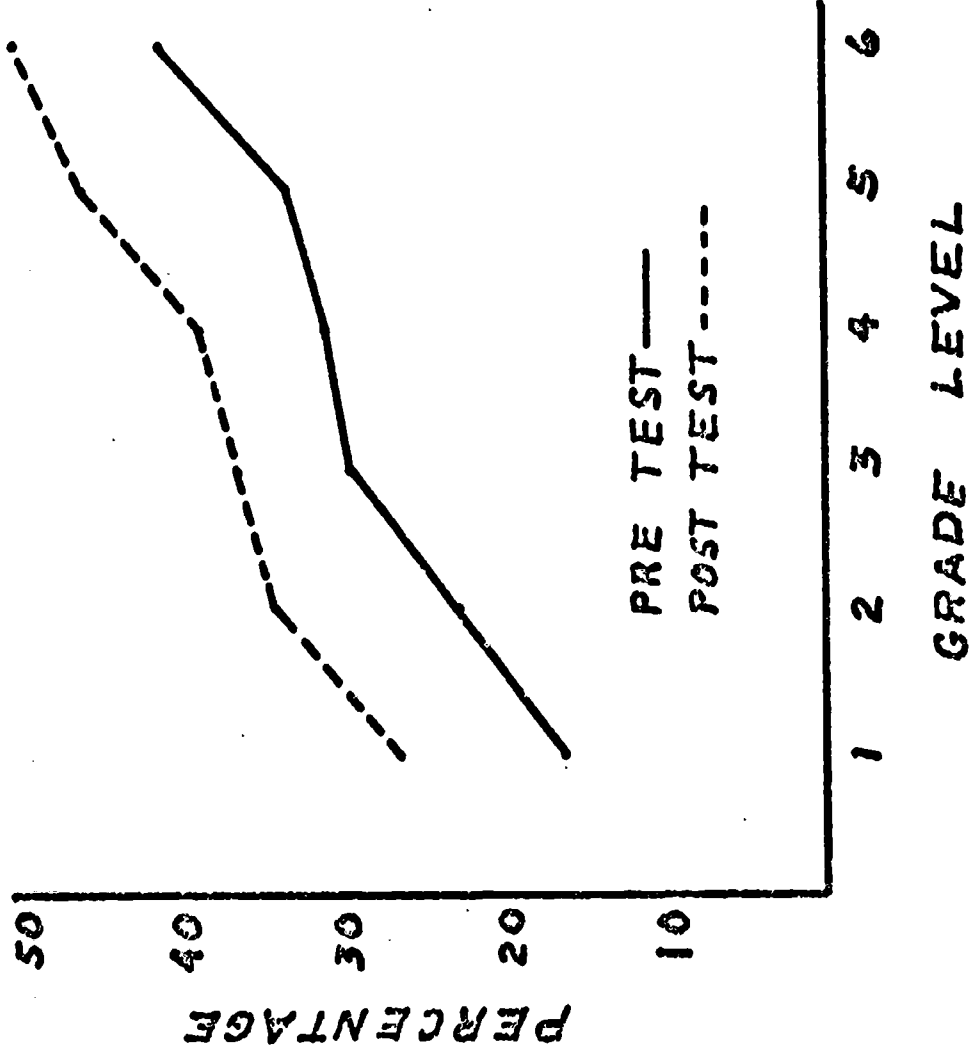
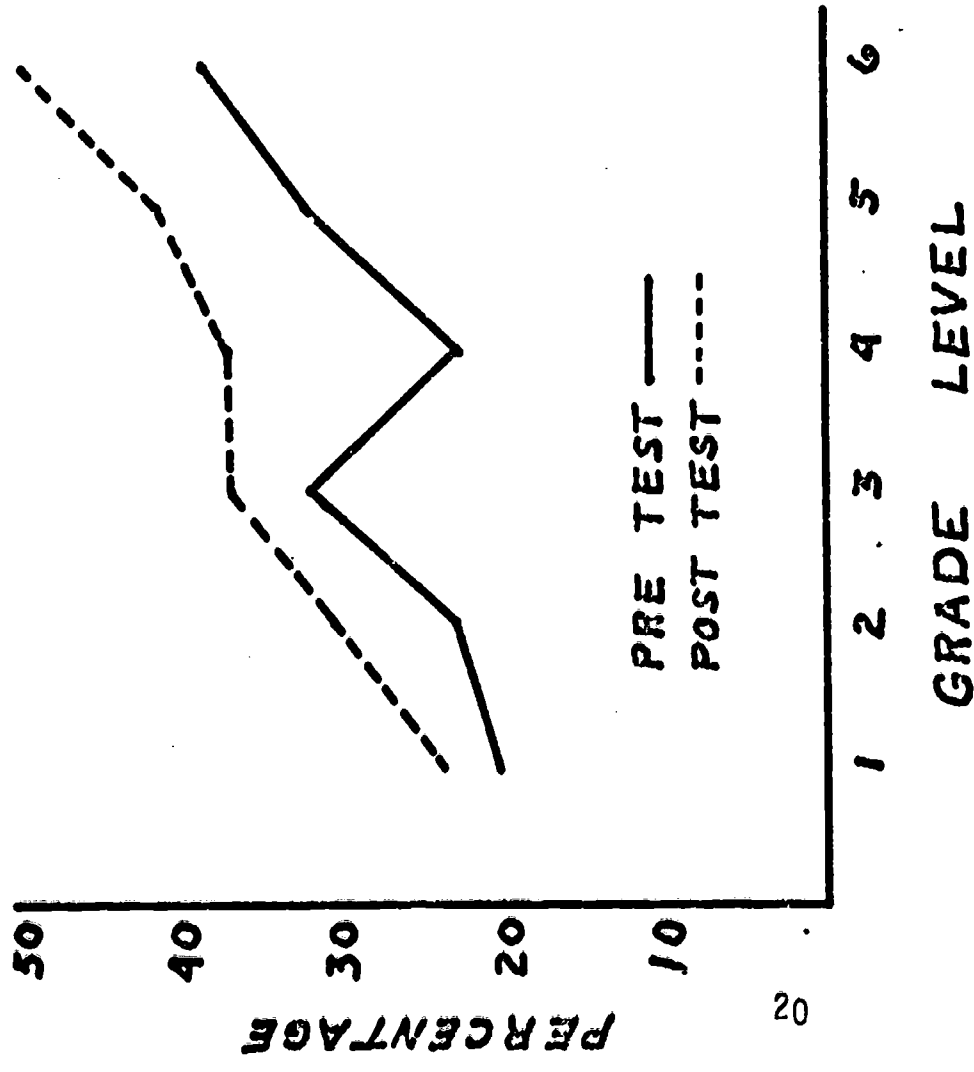


FIGURE 7



BANCROFT

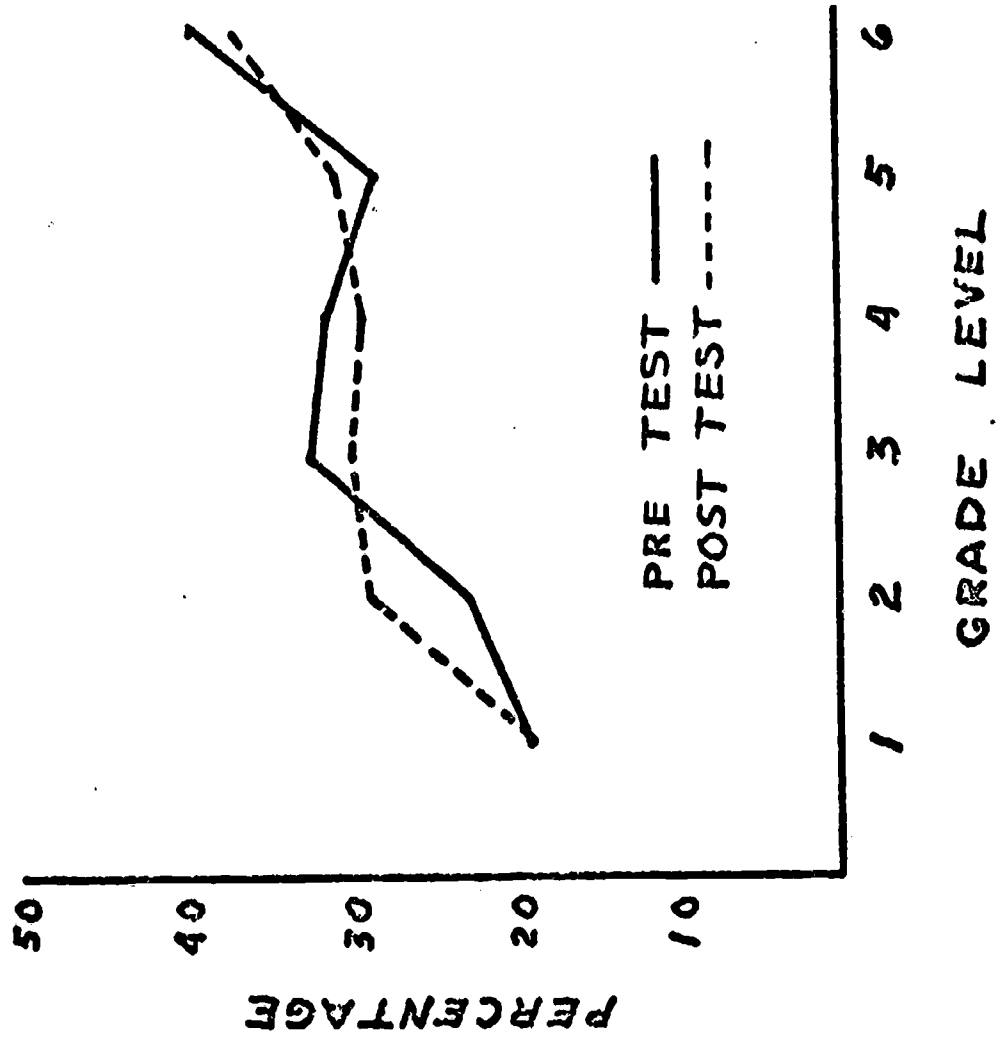
"WHO AM I"



LINCOLN

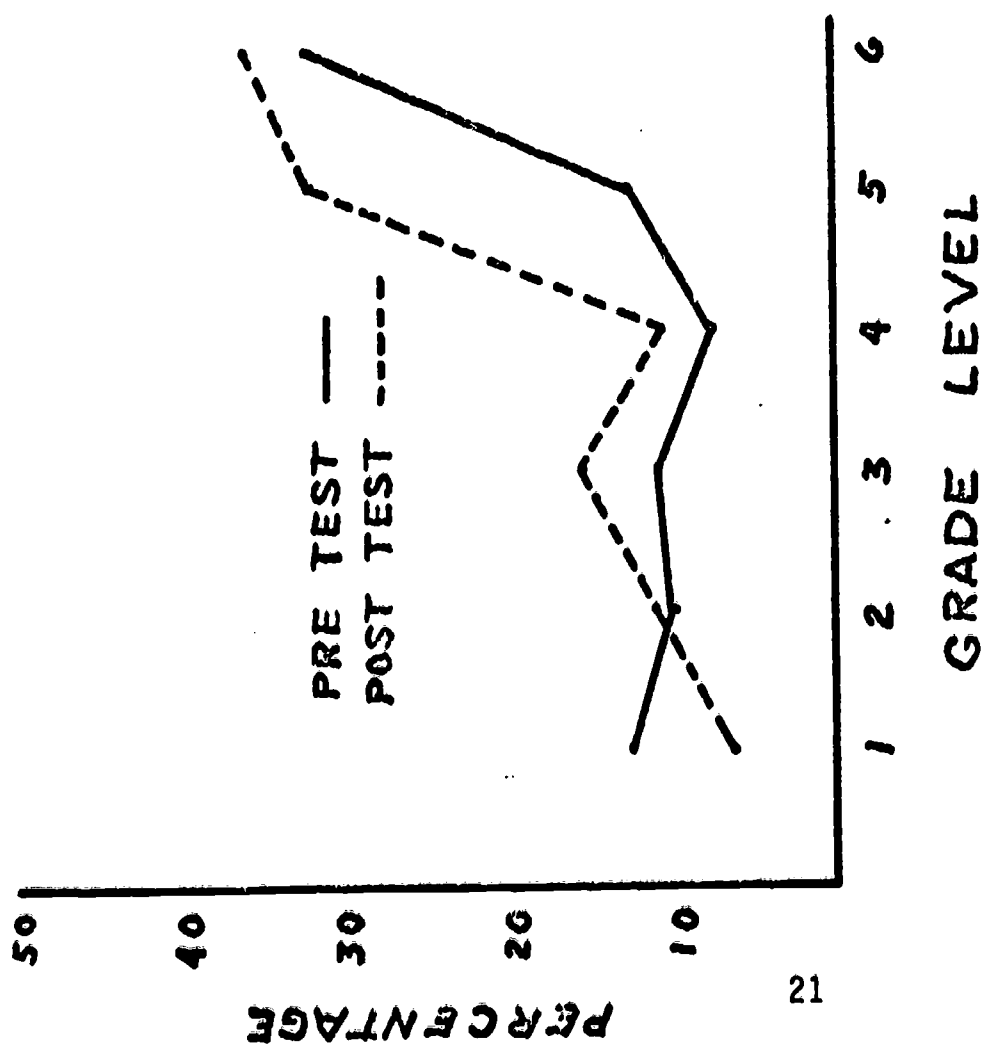
"WHO AM I"

FIGURE 8



BANCROFT

"WHAT DO I DO"



LINCOLN

"WHAT DO I DO"

particular job requires, as far as the type of work is concerned. Several factors may account for this fluxuation including scoring procedures, maturation level of the students, or the method of presenting the career materials in the classroom.

Figures 9 and 10 show the difference between the elementary controlled groups compared with the experimental group. In Figure 9, the reader can see that except for the second and fourth grades, the experimental group equaled or surpassed the controlled group. This Figure deals with the question "WHO AM I".

Figure 10 shows the post test comparisons of the experimental and controlled groups for each grade level on the question "WHAT DO I DO". In this case, only two of the experimental group surpassed the controlled group.

Awareness Growth for Elementary Experimental and Controlled Groups:

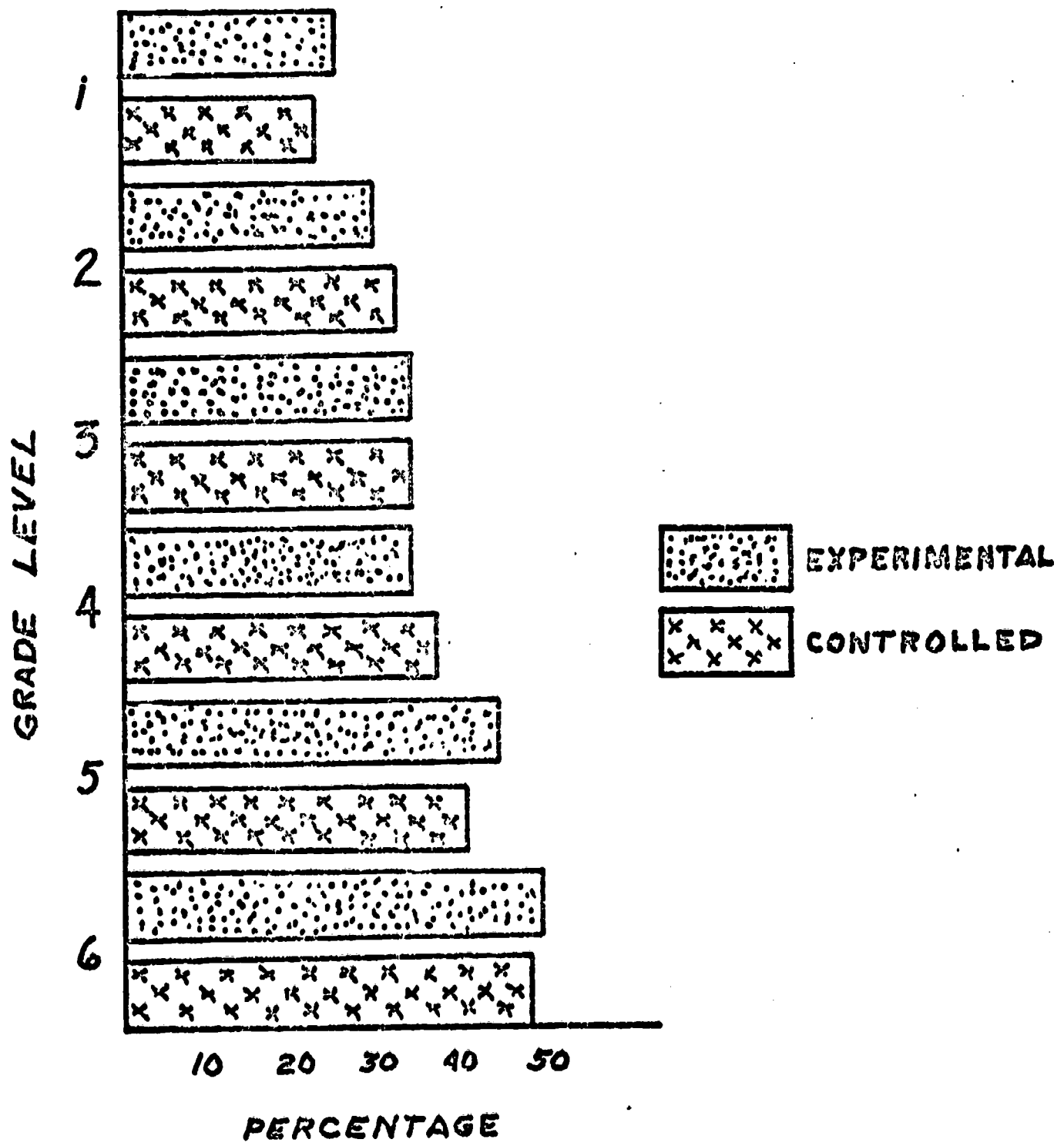
Table 1 describes the amount of career awareness growth acquired during the school year for the elementary school children. One of the objectives of the CASES project was to increase the career awareness for students in the Sioux Falls school district. This table indicates that on the question "WHO AM I", the experimental groups gained at a faster rate than the controlled groups. The only exception was at the second grade level.

For the question "WHAT DO I DO", the experimental groups exceeded the controlled groups in grades one, three, four, and six.

FIGURE 9

COMPARISON - POST TEST

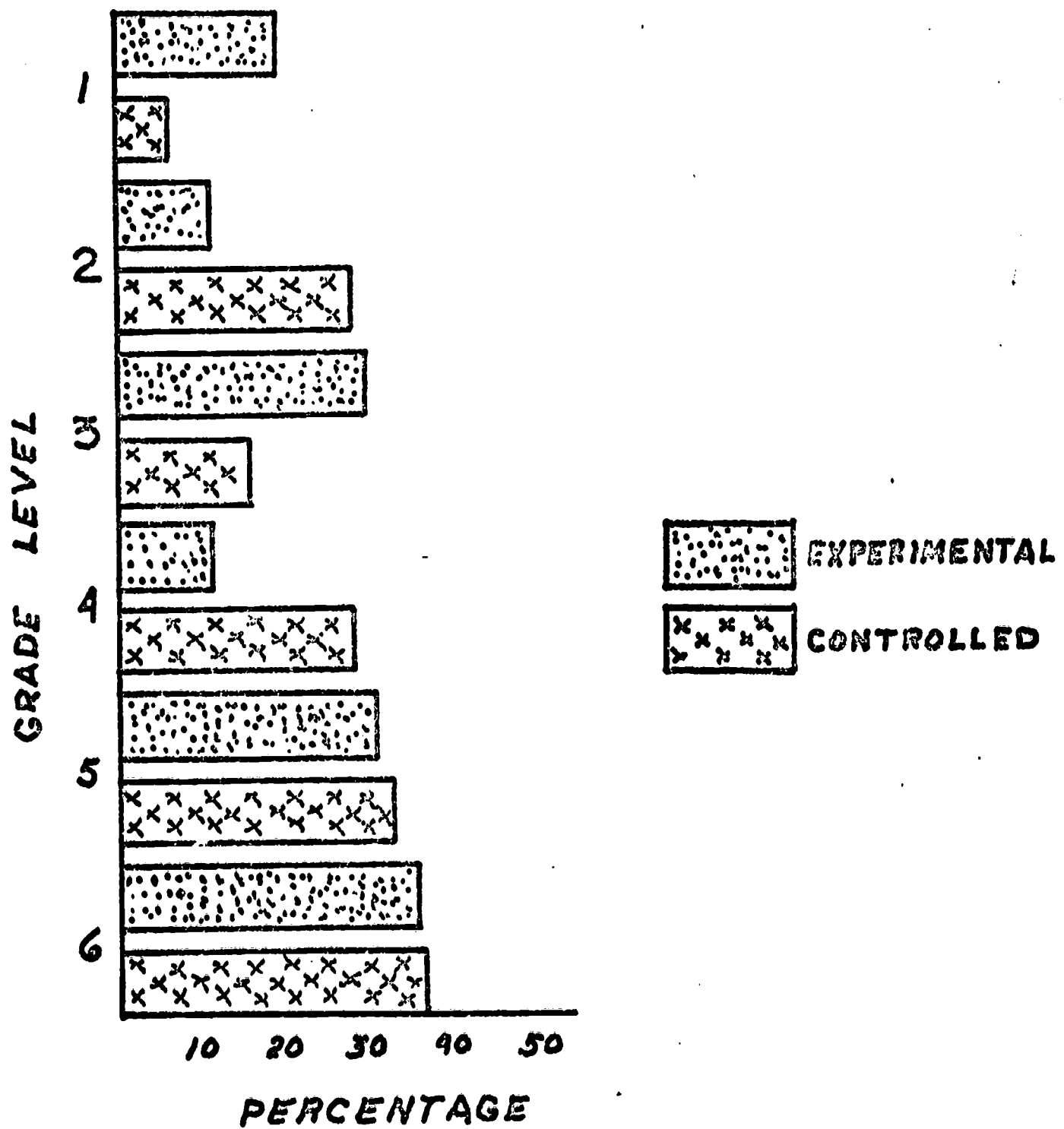
EXPERIMENTAL vs CONTROLLED



"WHO AM I"

COMPARISON - POST TEST

EXPERIMENTAL vs CONTROLLED



"WHAT DO I DO"

Table 1

A COMPARISON OF CAREER AWARENESS GROWTH
FOR ELEMENTARY STUDENTS
IN THE CASES PROJECT

<u>Bancroft</u>				<u>Lincoln</u>			
<u>"WHO AM I"</u>							
<u>Grade</u>	<u>Pre Test</u>	<u>Post Test</u>	<u>Growth</u>	<u>Grade</u>	<u>Pre Test</u>	<u>Post Test</u>	<u>Growth</u>
*1	17%	26%	9%	1	20%	23%	3%
2	22%	33%	11%	*2	23%	30%	7%
*3	29%	35%	6%	3	32%	35%	3%
4	31%	38%	7%	*4	23%	35%	12%
*5	33%	45%	12%	5	32%	41%	9%
6	43%	49%	6%	*6	39%	50%	11%

<u>Bancroft</u>				<u>Lincoln</u>			
<u>"WHAT DO I DO"</u>							
<u>Grade</u>	<u>Pre Test</u>	<u>Post Test</u>	<u>Growth</u>	<u>Grade</u>	<u>Pre Test</u>	<u>Post Test</u>	<u>Growth</u>
*1	18%	19%	1%	1	12%	6%	-6%
2	22%	28%	6%	*2	10%	11%	1%
*3	32%	30%	-2%	3	10%	16%	6%
4	30%	28%	-2%	*4	7%	11%	4%
*5	26%	31%	5%	5	12%	33%	21%
6	39%	37%	-2%	*6	33%	36%	3%

*Indicates the Experimental group

In grades two and five the controlled groups indicated a greater awareness for the ability to describe what the various workers do while performing their jobs.

Considering the two questions, the test shows that 75% of the experimental groups in the elementary schools became more aware of the names of occupations and the type of work being done as compared to the controlled group. Based on those results, the CASES project can be considered as a success in its pilot year. There is still room for improvement and during the next school year, the testing instrument will be revised to make it a more reliable instrument for measuring career awareness.

9th Grade Post Test Results:

Figures 11 and 12 illustrate the results of the pre test compared to the post test for both the questions "WHO AM I" and "WHAT DO I DO". The post test results showed that there was an increase from 47.4% to 53.7% in being able to name the particular occupation. There was an increase of 48.7% to 49.3% in being able to describe what the person does on the particular job.

During the next school year, the revised testing instrument will be used to compare an experimental group with a controlled group at the 9th grade level.

FIGURE 11

9th GRADE "WHO AM I"

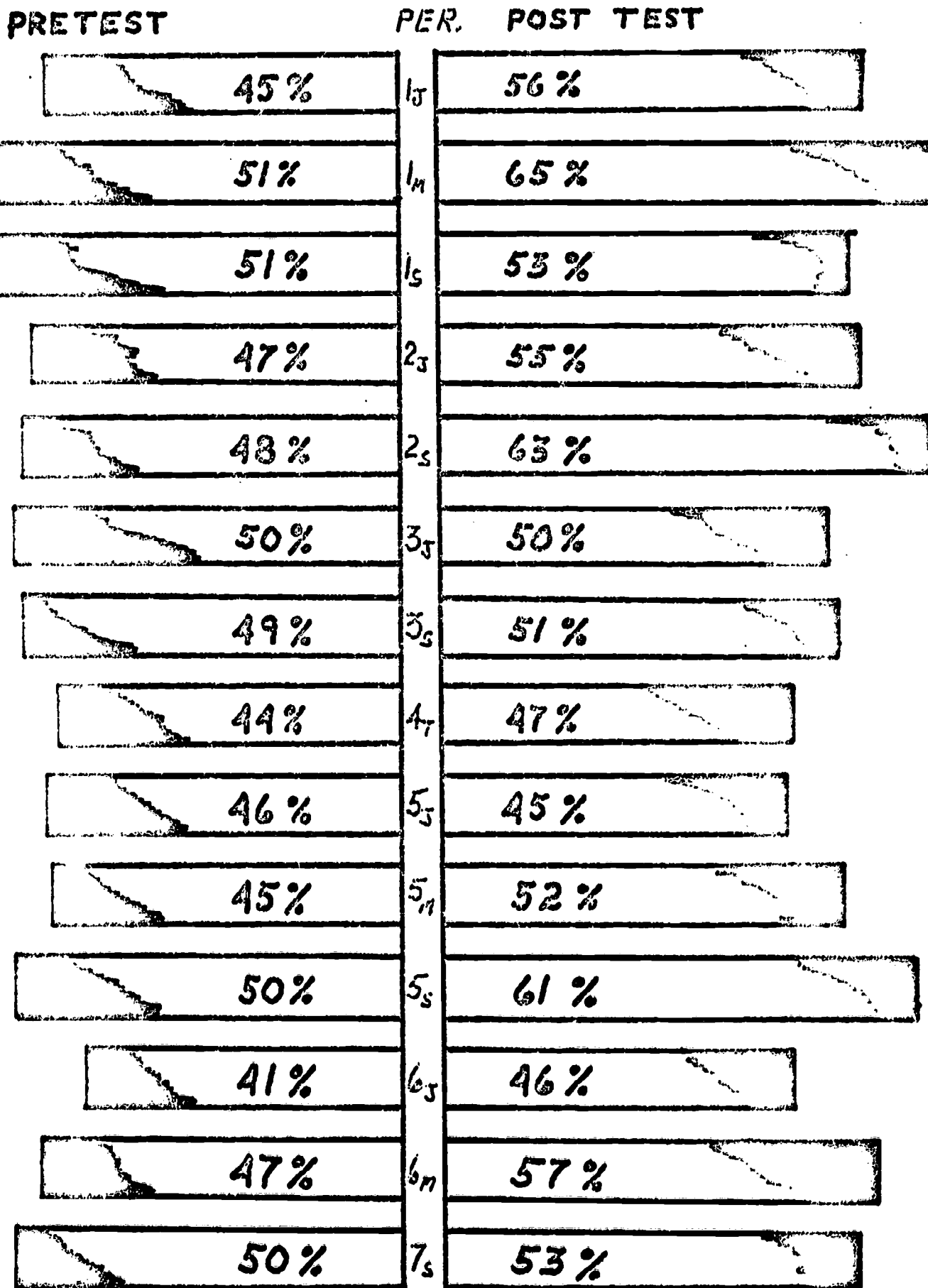
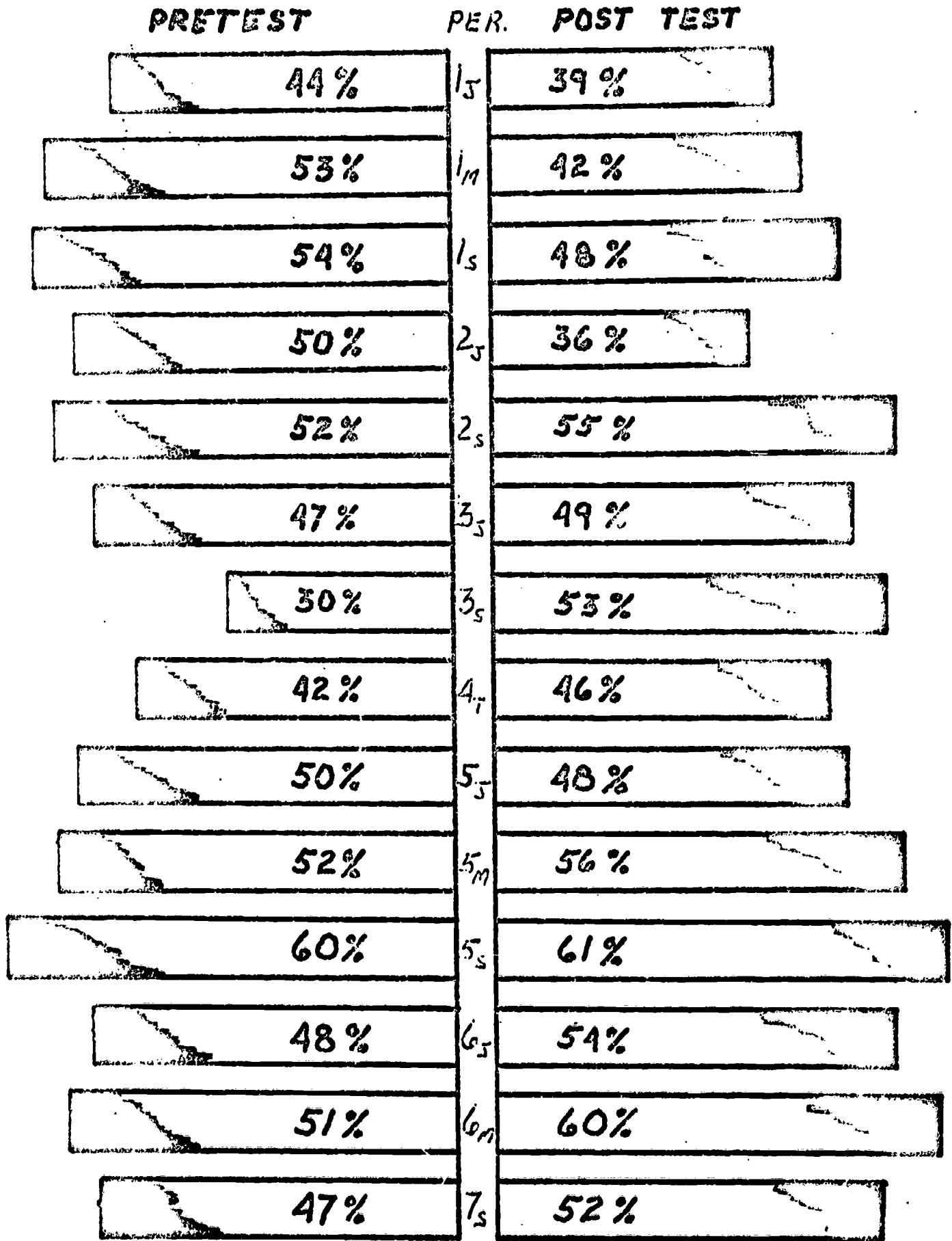


FIGURE 12

9th GRADE "WHAT DO I DO"



CONCLUSIONS AND RECOMMENDATIONS

In light of the analysis of the findings from the CASES project, the following conclusions and recommendations were made.

1. The CASES testing instrument did prove that those students who were in the experimental groups gained more career awareness information than those students who were in the controlled groups.

It was recommended that the testing instrument be used again next year after some necessary refinements are made on the instrument.

2. The testing instrument contained slides that created various degrees of confusion among the students. It was apparent that the primary level children could not comprehend the meaning of several of the slides.

It was recommended that a new slide series be developed for testing purposes. A different set should be developed for use in primary (grades 1-3), intermediate (grades 4-6), and secondary (grades 7-12).

3. The answer sheet required an excess amount of time to correct. The person scoring the sheets was required to use a personal judgement as to what numerical score (ranging from 0-3) should be given. Consistency was a factor which became difficult to adhere to.

It was recommended that a new answer sheet be developed so that the student can make an objective choice for the questions being asked. This form of answer sheet would eliminate the judgement decision presently being forced on the person scoring the answer sheet.

APPENDIX A

The following is the list of slides used in the career awareness testing instrument.

<u>Slide No.</u>	<u>Name of Occupation</u>	<u>Job Cluster Representative</u>
*1.	Nurse	Health
2.	Brick Layer	Construction
3.	Inspector	Manufacturing
4.	Taxi Driver	Transportation
5.	Garbage Collector	Public Service
6.	Beauty Operator	Personal Service
7.	Band Director	Arts & Humanities
8.	Repairman	Business & Office
9.	Pollution Inspector	Environmental
10.	Housewife	Consumer & Homemaking
11.	TV Cameraman	Communications & Media
12.	Stewardess	Hospitality & Recreation
13.	Produce Men	Marketing & Distribution
14.	Elevator Operator	Agri-Business & Natural Resources

*An example of scoring for slide No 1 for the question "WHO AM I", would be as follows;

<u>Student Response</u>	<u>Score</u>
Nurse, RN, or LPN	3
Hospital Worker	2
Woman or Worker	1
No Response	0

SLIDE	WHO AM I?	WHAT DO I DO?	WOULD YOU LIKE MY JOB? WHY?			SLIDE	WHO
			YES	NO	NOT SURE		
	3	3				8	
	2	2				9	
	3	3				10	
	3	3 2				11	
	3	3				12	
	3	3				13	
	3	3				14	

DO YOU LIKE MY JOB? WHY?		SLIDE	WHO AM I?	WHAT DO I DO?	YES	(NO)	NOT SURE
NO	NOT SURE		3	3			
NO	NOT SURE		2	2			
(NO)	NOT SURE		2	2	(YES)	NO	NOT SURE
NO	NOT SURE		1	1	YES	NO	(NOT SURE)
NO	NOT SURE		1	1	(YES)	NO	NOT SURE
NO	NOT SURE		0	0	YES	NO	NOT SURE
NO	NOT SURE		2	2	(YES)	NO	NOT SURE

BEST COPY AVAILABLE

CAREER AWARENESS (CASES) POST-TEST - BANCROFT

04-23-73

**1ST NUMERIC OF ITEM = WHO AM I --- 2ND NUMERIC OF ITEM = WHAT DO I DO ---

NAME	G/S	*** I T E M S ***												
		-1-	-2-	-3-	-4-	-5-	-6-	-7-	-8-	-9-	10-	11-	12-	13-
BARRETT MONICA MAR	201	32Y	22N	00Y	33N	33N	32Y	23Q	11Y	00Y	32Y	22N	33Y	10Y
CONLEY TERI JEAN	201	32Y	12N	00N	33Y	23N	32Y	33Y	11Y	00N	32Y	22N	22Y	10Y
DE JONG RONALD RAY	201	32N	22Y	22Y	33N	33N	22N	12Y	11Y	10N	22N	12Y	01Y	11Y
EISENBERG JODI	201	32N	22N	00Y	23Y	33N	33Y	02N	10Y	10Y	23Y	22Y	33Y	00Y
ELCOCK JERALD LEE	201	32Y	22Y	22Y	13Y	33Y	22Y	23Y	23Y	00Y	23Y	22Y	00Y	00Y
FRESORGER LYNETTE	201	32Y	12N	00Q	13Y	33N	22Y	00Q	11Y	00Q	22Y	10Y	00N	11Y
HAYES MARY TERESE	201	33Y	12N	01N	33Y	33N	12Y	33N	11N	00Q	22Y	01N	02N	01N
HEPPENSTALL KIMBER	201	32Y	22N	22N	32N	33N	32Q	23N	00N	10N	23Y	22N	33Q	11N
HOFFMAN JULIE MARI	201	30Y	12N	00Q	33Q	33Q	22Y	00Q	11Y	00Q	22Y	00Q	03Q	10Y
HOLLAREN TERRI JO	201	32Y	32Y	21N	33Y	32Y	32Y	23Y	33Y	30Y	32Y	20Y	30Y	10Y
HONKEN BRIAN NICK	201	32N	12Y	00Y	33N	33N	02N	33N	00Y	01Y	23N	22Y	33N	00Y
KROON KARA MARIE	201	32Y	22N	11Y	33N	01N	32Y	33Y	03N	10N	33Y	12Y	32Y	10Y
LEAPLEY PATRICK RA	201	32N	22Y	11Y	33Y	33Q	22N	33Y	11N	11N	32Q	20Q	30N	11N
LONG LISA LYNN	201	31Y	11N	10N	33Y	33Y	22Y	12Y	13Y	10Y	21Y	12N	01Y	00Y
PESICKA KAREN LYNN	201	32Y	22N	00N	33Y	33N	22Y	23N	11N	00Q	22Y	12N	00Y	11N
PETERSON BARBARA A	201	32Y	22N	00N	13N	33Y	33Y	33Y	00Y	00N	22Y	10N	32Y	11Y
PREHEIM STEVEN TOD	201	33N	33Q	22Y	33N	33Q	33N	33Y	11Y	11Q	22N	22Y	10Y	11Q
RAMES JEFFREY LEE	201	33N	22Y	12Y	32Q	33N	22N	33Y	33Y	11Y	22N	22Y	33Y	11N
RIDDLE BRADLEY ALA	201	32N	22Y	22Y	33Q	33Q	32N	33N	23N	10Y	32N	12Y	00N	11Y
SETTERHOLM MACHELL	201	33Y	22N	00N	33Y	00N	33Y	33N	11Y	00N	23Y	23N	33Y	11Y
SPOTTED HORSE STAR	201	32Y	11N	00N	33Y	33N	32Y	00Q	11Y	00Q	23Y	00Y	00Y	11N
TORNOW JEFFREY TOD	201	32N	22Q	22N	32Q	33Y	33N	01N	10Y	00Q	33N	12Q	00N	11Y
VIRKUS JON JOSEPH	201	33N	22Q	22Y	33N	33N	32N	33Y	10Q	00N	22N	23Q	13N	11Y
WAGGONER TERESA AN	201	32Y	22N	22Y	33Y	33N	10Y	23Y	01Y	00Q	22Y	23N	23Y	10Y
WEILER RUTH ANN	201	32Y	22N	10N	33N	33N	12Y	33Y	11Y	00N	22Y	23N	13Y	11Q

NUMBER OF STUDENTS 25

DF ITEM = WHAT DU I DU --- Y= YES,N= NO,Q= NOT SO

M 5 ***							--POINTS--			VALUE	VALUE
-8-	-9-	10-	11-	12-	13-	14-	WHO	WHT	TOT	WHO	WHAT
11Y	00Y	32Y	22N	33Y	10Y	00N	26	23	49	0.43	0.29
11Y	00N	32Y	22N	22Y	10Y	11N	25	23	48	0.36	0.21
11Y	10N	22N	12Y	01Y	11Y	11N	23	24	47	0.21	0.14
10Y	10Y	23Y	22Y	33Y	00Y	01N	22	24	46	0.29	0.36
23Y	00Y	23Y	22Y	00Y	00Y	10Y	22	25	47	0.14	0.36
11Y	00Q	22Y	10Y	0GN	11Y	10N	16	16	32	0.14	0.14
11N	00Q	22Y	01N	02N	01N	00Q	17	24	41	0.29	0.29
00N	10N	23Y	22N	33Q	11N	11N	28	26	54	0.36	0.29
11Y	00Q	22Y	00Q	03Q	10Y	10Y	17	16	33	0.21	0.21
33Y	30Y	32Y	20Y	30Y	10Y	30Y	37	20	57	0.71	0.21
00Y	01Y	23N	22Y	33N	00Y	00Y	20	24	44	0.36	0.36
03N	10N	33Y	12Y	32Y	10Y	32N	27	26	53	0.50	0.29
11N	11N	32Q	20Q	30N	11N	10Q	29	21	50	0.43	0.21
13Y	10Y	21Y	12N	01Y	00Y	11Y	20	20	40	0.21	0.21
11N	00Q	22Y	12N	00Y	11N	10N	21	21	42	0.21	0.21
00Y	00N	22Y	10N	32Y	11Y	00N	22	21	43	0.36	0.29
11Y	11Q	22N	22Y	10Y	11Q	10N	29	27	56	0.43	0.43
33Y	11Y	22N	22Y	33Y	11N	11N	30	30	60	0.43	0.36
23N	10Y	32N	12Y	00N	11Y	11Q	28	26	54	0.43	0.29
11Y	00N	23Y	23N	33Y	11Y	11N	24	26	50	0.36	0.50
11Y	00Q	23Y	00Y	00Y	11N	10N	18	16	34	0.29	0.21
10Y	00Q	33N	12Q	00N	11Y	10N	23	21	44	0.36	0.21
10Q	00N	22N	23Q	13N	11Y	11Q	27	28	55	0.36	0.43
01Y	00Q	22Y	23N	23Y	10Y	10N	24	24	48	0.21	0.36
11Y	00N	22Y	23N	13Y	11Q	00N	23	25	48	0.29	0.36

AVERAGES- 0.33 0.29