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ABSTRACT

An evaluation was conducted of a regional program designed to implement in each of eight selected school districts during the 1974-75 school year a career education program that had been previously tried in a school setting. A pre- and post-evaluation design for students and staff members was used. Students and staff members in pilot career education classes were selected in each pilot site to (1) represent specific grade levels, (2) represent all or a significant number of students, and (3) complete designated cognitive subtests of the Career Maturity Inventory (CMI). Control groups were selected at two pilot sites to establish representative baseline data for the three instruments: Elementary Inventory, Career Maturity Inventory Attitude Scale, and Career Maturity Invertory Competence Test. When viewed by level and location groups, it was noted that means and gains were near the same levels and showed varying levels of significance. When all schools were considered together, there was statistically significant gain on combined parts of each measure. It is concluded that the program, on a whole, produced statistically significant gains in the area of career education. Well-developed career education programs can be transported and installed on a region-wide basis with student gains in career awareness and career maturity probable through intervention by one of the identified career education project programs. (JT)

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EVALUATION REPORT FOR CAREER EDUCATION STRATEGIES: A REGIONAL PROCESS 1974-1975

OVERVIEW:

Title III, Elementary and Secondary Education (ESEA), grants in the amount of \$108,603 were approved for the Education Service Center - Region XVII to implement in each of eight (8) selected school districts during the 1974-75 school year a career education program that had been previously tried in a school setting. Evaluative data are provided in this report as a composite of the eight (8) career education schools in the 1974-75 project. The eight career education project schools were:

Site	Grade Level	Students	<u>Staff</u>
Floydada	K-12	1,499	31
Levelland	K-9	600	35
Olton	K-12	757	26
Petersburg	K-12	614	18
Plains	K-12	412	36
Ralls	K-12	612	23
Shallowater	K-12	400	20
Sudan	K-4 Totals	181 5,075	$\frac{13}{202}$

Procedures:

A pre and post evaluation design for students and staff members was used. A sizeable group of data were gathered on three sets of participants in the Career Education Program conducted under the auspices of Education Service Center - Region XVII. The testing was accomplished in the schools involved without knowledge of results of the testing or previous familiarity with the instruments. Locally devised instruments and a standarized instrument were used in relation to stated

objectives of the activities. Scoring and recording were accomplished externally to the participating units.

Students and staff members in pilot career education classes were selected in each pilot site to (a) represent specific grade levels, (b) represent all or a significant number of students, and (c) complete designated cognitive sub-tests of the standardized instrument.

Control groups were selected at two pilot sites during the 1974-75 school year to establish representative baseline data for the three instruments (1) Elementary Inventory, (2) Career Maturity Inventory Attitude Scale, and (3) Career Maturity Inventory Competence Test. The selected groups consisted of two elementary classes and three high school classes. No control groups were established for staff members due to the small number involved. The control groups were not involved in student career education activities which were conducted by the project staff.

Instrumentation included the following for pre and posttests over a six-month period:

- Elementary Student Form: An elementary level inventory for grades K-6 was submitted to a target population of 989 pupils. Teachers recorded responses for students in the lower elementary grades. An eleven item section of the instrument concerns a student's attitude toward careers and vocations. A second section of the instrument concerns occupational information as relates to tasks and why people work. No validity or reliability measures were established with the instrument.
- 2. Career Maturity Inventory (CMI) published by CTB/McGraw Hill was used with 859 secondary students grades 7-12. The "Attitude Scale" (Form A-I) was submitted to all secondary students designated in the evaluation design. The "At-



titude Scale" consists of 50 items about career choice. The "Competence Test" (Form A - 1) consists of five parts that measure career choice competencies: (1) Self-Appraisal, (2) Occupational Information, (3) Goal Selection (4) Planning, and (5) Problem Solving. Project sites—re selected to provide a minimum of one competence sub-test per site. Validity and reliability of the CMI have been published by the California Test Bureau in Theory and Research Handbook, 1973, by John Crites.

3. Staff Inventory: A 36 item staff inventory was submitted to 133 professional staff members who were directly involved in the project. No validity or reliability measures were established with the instrument.

Analysis:

Analyses were developed by individual school site and by composite for the eight sites. At test was applied to determine the significance of differences between means for two groups. A five percent level of confidence was chosen to indicate that if the probability were greater than 5 in 100 of the difference occurring by chance, the difference was termed not significant (NS).

A Summary Table for the individual school site and a composite of all eight (8) schools presents findings by instrument for the number of cases (N), pre and post means, t value, probability values at the .05 level (P), and the composite range of values for pretests. The Summary Table is presented in such manner that a comparison of the analysis from the individual school site can be made with the composite analysis for all eight project schools.

A Summary Table for an individual school district appears on the following page.

REGION XVII CAREER EDUCATION PROJECT 1975-76

"t" Test Findings

Lubbock, Texas

	Composite for (8) Project Schools					
Instrument		Pre	ean Post	t Value	P	Range of Scores
Elementary Student Form	N			·		
(a) Items 1-11	989	6.69	7.46	9.430	.001	0 - 11
(b) Tasks	989	12.17	14.34	11.459	.001	0 - 22
Career Maturity Inventory (CMI)		-				
(a) Atti tude Scale	85	30.19	31.51	4.300	.001	7 - 47
(b) Competence Test	85	9 10.64	11.39	3.594	.001	0 - 20
Teacher Inventory	13	3 87.04	89.25	2.600	.01	62 - 102

DEFINITIONS:

N:

Number of Cases

Mean:

Sum of Scores Divided By The Number of Scores

t Value:

Ratio of Variability Between Measures of Two Groups, Based Upon

P:

Difference in Means
Signi ficance Level or "NS" for Non-Significant

Range of Scores: Minimum Score to Maximum Score for All Schools on Pre Test

Interpretations:

1. Elementary Student Form

Significant differences occurred in the composite group for both parts of the elementary instrument. Of the eight schools with elementary students tested, significant differences occurred in five schools for Items 1-11 on the elementary instrument. The same five schools plus another school had significant differences indicated for the second portion of the elementary instrument (tasks). The means were very similar for the small groups from the six school sites. When the groups were pooled as a composite, the number (N) increased and the significance revel increased.

2. Career Maturity Inventory (CMI)

Significant differences occurred in the composite group for the "Attitude Scale" and the "Competence Sub-Test". Of the seven secondary school populations tested, significant differences occurred in three schools on the "Attitude Scale" for two schools and significant differences occurred in three schools on the "Competence Sub-Test". No significant differences on either measure were reported for four secondary school populations. When the groups were pooled as a composite, the number (N) increased and the significance level increased. The 859 pretest mean scores on the "Attitude Scale" ranged from 26.56 to 32.21 for the seven secondary school populations. Comparable data from the Region XVII Career Education Project for 1973-74 show 889 pretest mean scores on the "Attitude Scale" ranged from 28.6 to 34.0 for five secondary populations. The 859 pretest scores on the "Competence Sub-Tests" ranged from 7.19 to 13.58 for the seven secondary school populations. Comparable data from the Region XVII Career Education Project for 1973-74 show



889 pretest mean scores on the "Competence Sub-Tests" ranged from 9.21 to 12.44.

3. <u>Staff Inventory</u>

Significant differences occurred in the composite analysis of 133 teacher inventories which were processed. A significant difference was found for one of the eight project schools when the data were analyzed by individual sites. The 133 pretest mean scores on the Staff Inventory ranged from 79.60 to 89.86 for the eight project schools. Comparable data from the Region XVII Career Education Project for 1973-74 show 143 mean scores ranged from 82.12 to 87.42 for five project schools.

Summary:

A sizeable group of data were gathered on three sets of participants in the Career Education Program conducted under the auspices of Education Service - Region XVII during the 1974-75 school year. The testing was accomplished in the schools involved without knowledge of results of the testing or previous familiarity with the instruments. Locally devised instruments were developed in relation to stated objectives of the activities. Scoring and recording were accomplished externally to the participating units. Data from control groups at two pilot sites support the project's Career Education intervention programs in that all control groups show no significant differences on any of the student measures used in the project evaluation.

When viewed by level and location groups, it was noted that means and gains were near the same levels and showed varying levels of significance. Taken by instrument the elementary inventory appeared to be the most sensitive, but most often reflected significant gain. When all schools were considered together, thereby increasing the N to relatively large numbers, there was statistically significant gain on combined parts of each measure.



Within the teacher group the measure indicated a confidence level of .01 which would justify rejection of the null hypothesis that no significant gains would occur.

For the elementary inventory, non-significant gains were noted in five of sixteen analyses. In each part of the instrument, a confidence level of .001 was indicated and the null hypothesis would again be rejected.

On the standard measure used for secondary students, findings varied somewhat by location with five schools showing non-significant increases on either part or whole. Taken as a total group, however, with the 859 students' data available for both pre and post measures, there was statistically significant gain indicated.

It is concluded that the program, on a whole, produced statistically significant gains in the area of career education. Well-developed career education programs can be transported and installed on a region-wide basis with student gains in career awareness and career maturity probable through intervention by one of the identified career education project programs.