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ABSTRACT

Experienced-Based Career Education (EBCE) is an approach to the problems of youth in relation to career awareness and preparation. EBCE is based on the rationale that exposure to work environments reinforces the acquisition of academic skills and is more effective than traditional classroom approaches. Research for Better Schools, Inc. has developed and implemented a program emphasizing career development, guidance, and basic skills. The evaluation design reflects increasing sophistication of selection procedures, instrumentation, and analysis over the first two years of the project. Results have demonstrated the feasibility of EBCE, significant gains in academic skills, and highly positive attitudes toward the program by students, parents, and employers. (Author)

Summative Evaluation of the RBS Career Education Program*

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PROBLEM AND RATIONALE

The U.S. Office of Education and the National Institute of Education have identified educational problems related to successful career selection and pursuit (Stalford, 1974). These problems include an asserted gap between traditional school experience and preparation for adult vocational life, perceived deficiencies in the career awareness of youth, and inadequate information and strategies for making rational, self-determined career choices. In an effort to remediate these problems the federal government has sponsored developmental programs in career education.

A prototype career education program has been developed, operationalized and tested in Philadelphia by Research for Better Schools, Inc. (RBS). The prototype has been designed to provide secondary school students with cognitive skills, career experiences and personal perspectives which will aid their selection and pursuit of adult life goals. The program utilizes self-paced learning resources, direct participation in vocational environments, classroom experiences and adult-youth interpersonal interactions to achieve its ends. It is hypothesized that this multi-disciplinary approach, focusing on individualization and community-based experiences, will produce educational effects that are superior to

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*Based on a paper presented at the 1975 Annual Meeting of the American Educational Research Association held in Washington, D.C.; April, 1975. Keith M. Kershner is Director of Evaluation and Mark W. Blair is an Evaluation Specialist for the RBS Career Education Program.

approaches constrained by a classroom structure. It is also posited that the RBS program can feasibly be adapted for use by most public school districts. Closer cooperation between the education and business communities is seen as an additional long range result. The implementation of the program involves the establishment of continuing cooperation among these parties, both for the initiation of the program itself and for its further development and growth.

The RBS Career Education Program has been under development for four years and is currently in its third year of operations with secondary school students. The present paper briefly describes the program and presents evaluation techniques and findings in more detail.

THE RESEARCH FOR BETTER SCHOOLS PROGRAM

The RBS Career Education Program consists of three principal instructional components: Career Exploration and Specialization, Career Guidance, and Basic Skills.

For Career Exploration students have available a series of approximately 20 clusters of resource sites ranging through such fields as Animal Resources, Construction, Finance, Social Service, and Transportation. Approximately 80 related companies or sites have used their combined resources to plan and conduct cluster activities. Examples of companies and agencies participating in the Philadelphia program are: Lankenau Hospital, Bell of Pennsylvania, Drexel University, ARCO, Continental Bank, U.S. Civil Service Commission, Acme Markets and American Airlines. Each cluster program is developed jointly by representatives of the participating resource sites and RBS; the programs are conducted by employees of the participating companies and

agencies. For each 12 week academic quarter students elect one of the available clusters for their Career Exploration experience. They are involved in the cluster sites for one full day each week. These first-hand resource site programs are designed to allow students to learn about the economic community, to test their own vocational interests, and to obtain information for their career planning. Activities within the cluster programs are varied and may range from listening to a presentation about the company involved to traveling with a road crew.

After students have made a tentative career choice, they may elect to participate in Career Specialization. These are programs designed for individual students to investigate a single job or resource site in depth. The student defines objectives for each specialization, and activities are constructed to pursue those objectives. Career Specializations may last from a few weeks to many months. Together with Career Explorations, they constitute the student's direct experience in vocational environments.

Career Guidance is the second major instructional component in the RBS Career Education Program. This component is viewed as crucial in helping students to understand themselves, to assimilate their experiences in the program, and to understand career choice within the context of their own values. In order to accomplish this two activities are provided. First, each student participates in small group guidance sessions which meet weekly for an hour and a half. In these sessions an eclectic curriculum which draws upon students' resource site experience is employed to promote self exploration, values clarification, life skills, motivation to learn, career planning and integration of program activities.

Second, students have individual counseling sessions at least once per month. Since the counselors also coordinate Career Exploration and Specialization activities, students are afforded extensive interaction with counseling personnel.

The third principal instructional component is Basic Skills. This has been operationalized as an Academic Resource Center which focuses on the development of skills in English and mathematics. A systematic individualized approach is employed using a wide variety of materials and resources to construct learning programs for each student. Students are scheduled into the Center for six hours per week. Strengths and weaknesses are continuously diagnosed and the students work through individually prescribed programs at their own rate with trained teachers available to monitor progress and help as needs arise. Activities in the Academic Resource Center are related to other program elements where appropriate and possible.

These three instructional components constitute the essence of the RBS Career Education Program. They are characteristically individualized and responsive to student needs. The program has been designed to maximize student development and choice within an operational structure which can effectively serve a large number of students at reasonable costs, be implemented by most communities, and provide an evaluation basis for continuing the growth and development of career education.

The RBS program has served students in Philadelphia for three school years. It has expanded from an enrollment of 100 the first year to 250 students during the current term. During this period of time several aspects of the program have changed. This evolution has not been documented

in the present paper. Such omission has been incurred in the attempt to clearly present the fundamentals of the program.

THE EVALUATION DESIGN

The evaluation of the RBS Career Education Program has been a developmental effort which reflects the status of the project itself. During the first year of operations (1972-1973), the evaluation activities were predominantly formative in nature. Data were collected on the extent of implementation, perceptions of participants, and student progress on several criterion measures. No comparison groups were available to establish external standards or estimate relative effects. Instrument development was launched at this point.

During the second year, 1973-1974, it was possible to establish non-equivalent control groups in a quasi-experimental design. Formative issues identified during the first year were studied with enhanced precision. The instrument development effort yielded several measures which could be applied with reasonable confidence. The summative analysis of program effects assumed greater importance with the availability of improved instrumentation and comparative subject groups.

During the current year of operations, 1974-1975, a true experimental design has been achieved through the capability of randomly assigning applicants to treatment and non-treatment groups. An external summative evaluation has also been instituted to complement the heretofore exclusively internal evaluation effort.

The present paper is concerned only with the second year (1973-1974) summative results as they represent the latest completed research on the RBS Career Education Program. The quasi-experimental design presents some limitation regarding the conclusiveness which may be accorded these findings. Third year analyses using a true experimental design will allow stronger inference.

PROCEDURES

Treatment. The treatment provided to experimental subjects during 1973-1974 consisted of the RBS Career Education Program. Students participated in the program on a released-time basis, while taking some courses in their home high school. The program consisted of structured curriculum elements in Career Exploration and Specialization, Career Guidance and Basic Skills. All activities were designed to contribute to students' preparation for career selection and successful career pursuit. All activities allowed for substantial student choice and individualization of instruction. Many activities took place at operating business, agency or union sites. In order to make this possible, a large number of Philadelphia area firms were successfully recruited to contribute facilities and personnel for developing and operating learning activities for students. In addition to these participating community resources, a central site was established to house an Academic Resource Center, counseling rooms and other activity areas. Comparison group subjects participated in the regular high school curriculum.

Student Groups. During the 1973-1974 academic year 152 tenth, eleventh and twelfth grade students participated in the RBS program. These students constituted two experimental groups: the E1 group of 76 twelfth grade students who had been drawn city-wide during 1972-1973 and were returning for their second year in the program, and the E2 group of 76 tenth and eleventh grade students who were drawn from a single high school to participate for their first year in the program. The holdover group, E1, had no comparison students. The other experimental group, E2, had for comparison purposes a group, C, of 81 students randomly selected from the total student body of their sending school. The design thus included one experimental group with no analogous comparison group and a second experimental group with a non-equivalent control group. The experimental groups participated in the career education program described above, while the control group participated in the public school program offered by their sending school.

Instruments. Both standardized and project-developed instruments were utilized in the evaluation. Appropriate sections of the following instruments were administered to experimental and control students in a pretest-posttest package. The first two are available commercially, while the last has been prepared by RBS.

1. The Comprehensive Tests of Basic Skills (CTBS), to measure traditionally conceived cognitive skills in reading and mathematics,

2. the Career Maturity Inventory (CMI), to measure vocational attitude, occupational information and career planning,

3. the Assessment of Student Attitudes Survey (ASA), to measure attitudes toward education, school curriculum, school resources, school counseling and the learning environment overall.

In addition to the pretest-posttest package, the following instruments were used to generate data on the effectiveness of the program. All of these measures have been developed by RBS.

1. The Student Demographic Data Questionnaire (SDQ), to measure background variables,
2. the Student Opinion Survey (SOS), to measure student perceptions of the program,
3. the Parent Opinion Survey (POS) to measure the attitudes toward the program of parents of participating students.

The pretest-posttest instruments were administered by the evaluation staff under standardized conditions as close to the beginning and end of the school year as was possible for each group. Inter-test intervals were roughly equivalent across groups for each instrument.

The other instruments were administered only once during the year. The SDQ was included in the pretest. The SOS was administered by the evaluation staff at mid-year during group guidance sessions. The POS was handled by mail.

All data gathered by these instruments were maintained and manipulated via a computerized system housed at the University of Delaware. This system utilizes Burroughs 6700 hardware and a variety of software including SPSS, BASIS and BIO MED packages.

Analysis Design. The design was organized around a set of hypotheses concerning student effects and a set of propositions related to other effects. The hypotheses were tested using the results from the pretest-posttest package. They were stated as follows:

1. Students will gain significantly ($p<.10$) in basic skills over the course of the program year. This tests growth of the E1 and E2 groups on the CTBS.

2. Students will gain significantly more ($p<.10$) in basic skills than comparable students in a traditional school. This tests growth of the E2 vs. C group on the CTBS.

3. Students will gain significantly ($p<.10$) in career maturity over the course of the program year. This tests growth of E1 and E2 groups on the CMI.

4. Students will gain significantly more ($p<.10$) in career maturity than comparable students in a traditional school. This tests growth of E2 vs. C group on the CMI.

5. Students will evidence a significantly more ($p<.10$) positive attitude toward school than students in a traditional school. This tests attitude variable scores of the E2 vs. C group on the ASA.

Hypothesis testing of growth within groups was accomplished using correlated t-tests on pretest and posttest scores (Guilford, 1965). These analyses involved the E1 and E2 groups only. Hypothesis testing of relative growth between groups utilized analyses of covariance on posttest scores with the pretest levels as covariates (Finn, 1972). These analyses involved the E2 group and its non-equivalent control, the C group. The overall design was quasi-experimental with non-equivalent control groups.

The set of secondary propositions was less formal and concerned only the experimental groups. These were analyzed using the secondary set of measures which consisted of opinion surveys and project documentation. The additional propositions were as follows:

1. Participating students will evidence a positive attitude and commitment regarding the program. For this the SOS was used.

2. Parents will evidence a positive attitude and commitment regarding the program. Results from the POS were employed here.

3. School districts will demonstrate interest in incorporating the model for broader use in public education. The results from a poll of potential adopters were used to investigate the proposition.

These propositions were thus oriented toward more generalized issues. Criteria for absolute success or failure could not be prespecified. The results were intended to indicate relative efficacy and describe major perceptions of the RBS Career Education program.

RESULTS

Hypothesized gains in basic skills within groups were tested using correlated t-tests on the pre and post CTBS scale scores. Table 1 presents the results of these analyses. Of the seven tests run for

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Insert Table 1 about here

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the E1 group, five confirmed significant growth. All of the tests run on the E2 group demonstrated statistically significant growth in basic skills.

The gains of the E2 group were compared with gains of the C group using analyses of covariance with the posttest score as the criterion and the pretest score as the covariate. The results of these analyses are presented in Table 2. Of the five tests performed, only one, Arith-

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Insert Table 2 about here

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metic Applications, demonstrated a significant superiority of the experimental subjects over the comparison group.

Experimental group gains in career maturity were analyzed using correlated t-tests on the pre and post CMI raw scores. These results appear in Table 3. Of the three tests run for the E1 group, none

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Insert Table 3 about here

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indicated growth. Of the three tests run for the E2 group, all demonstrated significant development in career maturity.

The career maturity gains of experimentals versus controls were examined via analyses of covariance using the E2 and C scores on the CMI with the posttest as criterion and pretest as covariate. The results of these analyses are found in Table 4. The experimental group showed

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Insert Table 4 about here

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significant superiority in career maturity as measured by each of these analyses.

Comparative attitudes toward school and aspects of the learning environment represented the last area of hypothesis testing. Analyses of covariance on the ASA posttest scores of the E2 and C groups with the pretest as the covariate were performed. The results are presented in Table 5. Of the five analyses conducted, four indicated significant superiority of the experimental group.

Insert Table 5 here

The testing of secondary propositions involved less formal procedures than those reported above. It was posited that experimental students would evidence a favorable opinion of the program. The SOS was administered at mid-year with results as presented in Table 6. [illegible] these data it is

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Insert Table 6 about here

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apparent that participating students had a very positive attitude toward the program. On a scale of 1 to 5, with 5 being high, most response means were in the 4 range. Students were particularly favorably disposed toward the Career Education Program in comparison with their regular school.

It was also asserted that the parents of experimental students would demonstrate a positive opinion of the program. In order to determine this, the POS was administered at mid-year with results as presented in Table 7.

Insert Table 7 about here

These results indicate extremely high support of the program on the part of parents. Most response means approached the positive extreme of 5.

The final proposition was concerned with school district interest in the RBS Career Education Program. The issue here is whether the RBS model has a future as a contributer to public education outside of the demonstration project environment. In order to obtain an initial indication of this, descriptive materials were sent of public school districts in Eastern Pennsylvania, New Jersey and Delaware. To date over 100 have

indicated that the program has such potential to the degree that they wish to explore possible application in their areas. This suggests that the desire for career education within the public school domain is substantial.

CONCLUSIONS AND DISCUSSION

The results from the 1973-1974 evaluation of the RBS Career Education Program may be briefly recapitulated as follows:

1. Experimental students (E1 and E2) gained significantiy in basic skills during the course of their participation in the project.

2. The basic skills gains of experimental students (E2) were higher but not significantly different than those exhibited by their control counterparts (C).

3. First year experimental students (E2) gained significantly in career maturity, while second year students (E1) did not.

4. The career maturity gains of experimental students (E2) were significantly higher than those demonstrated by their control counterparts (C).

5. The gains in attitude toward school of experimental students (E2) were significantly higher than those of their control counterparts (C).

6. Experimental students (E1 and E2) demonstrated a very positive attitude toward the program.

7. The parents of experimental students (E1 and E2) demonstrated a very positive attitude toward the program.

8. An initial survey indicates that the desire for career education within the public schools is substantial.

Analyses involving the E1 group suggested that the program was effective in producing basic skills growth as measured by the CTBS and was not effective in facilitating career maturity as measured by the CMI. The lack of career maturity effects among these second year students raises questions about the

multiple year efficacy of the program. Interpretation is hindered by the unique constitution of the group as a holdover from an earlier stage of the program and the unavailability of comparative data. These results suggest the need for future investigation of multiple year effects under improved experimental conditions.

Analyses of growth within the E2 group clearly indicated the potential of the program in producing basic skills, career maturity and attitudinal gains. When experimental gains in attitudes and career maturity were compared with comparison group progress, program superiority was established. Basic skills gains of experimental students were higher than comparison students but the differences did not reach statistical significance.

The perceptions of the program on the part of participating students and their parents were very favorable. These positive findings included attitudes toward various aspects of the program and comparison of the program with previous school experiences.

These results generally supported the effectiveness claims of the RBS Career Education Program. This support must be interpreted with a design limitation in mind. For 1973-1974 random assignment of students to treatments was not possible. The best comparison group which could be constructed consisted of a random selection of subjects from the sending school population. This group served as a control for new students (E2); returning students (E1) had no comparison group available. The resultant design was quasi-experimental with all the limitations incumbent thereupon. Comparative findings between groups are thus weakened in decisiveness. Many of these limitations have been overcome in the

1974-1975 evaluation design. This design will allow a more extensive and definitive testing of the effects of the RBS Career Education Program.

SUMMARY

Research for Better Schools, Inc. has been responsible, under the auspices of NIE, for developing and operating a prototype career education program in Philadelphia. This program has been designed as an approach to problems of youth related to successful career pursuit. These problems include an asserted gap between traditional school experience and preparation for adult vocational life, perceived deficiencies in the career awareness of youth, and inadequate information and strategies for making rational, self-determined career choices.

The program has been operationalized for secondary-age students with three instructional components. The first, Career Exploration and Specialization, offers students a wide variety of curricular activities conducted at the work sites of participating industries, businesses, agencies and unions. These direct, "hands-on" experiences are provided by over 80 employers in the Philadelphia area. Students spend at least one full day per week in these activities. The second, Career Guidance, consists of structured small group guidance sessions each week and individual counseling. The final instructional component, Basic Skills, provides individualized learning opportunities in communication skills, and mathematics. Students are scheduled for basic skills instruction one and one-half hours each day.

The RBS Career Education Program thus constitutes a substantial curriculum focusing on student preparation for aware career selection and successful career pursuit. All activities are designed to maximize student choice and individualization of treatment. The program is conducted in close cooperation with the School District of Philadelphia, and has expanded in enrollment from 100 the first year to 250 during the current, third, year of operations.

The present paper reports evaluation findings from the program's second year, 1973-1974. The RBS Career Education Program evaluation has been conducted by an internal evaluation staff. The design has been a developmental one, increasing in precision and sophistication over the tenure of the project. The 1973-1974 design for analysis included two experimental groups and one non-equivalent control group. All students were administered a pretest-posttest series of instruments including the Comprehensive Tests of Basic Skills, the Career Maturity Inventory, the Assessment of Student Attitude Scale, and the Student Demographic Data Questionnaire. Hypothesized growth within groups was tested via correlated t-tests, while hypothesized between group differences required analyses of covariance with the posttest score as the criterion and pre-test level as the covariate. The .10 level was established as acceptable for statistical significance. Data on the opinions of participants and potential adopters of the program were also collected.

The evaluation results were regarded as demonstrating a high degree of effectiveness for the RBS Career Education Program. Student gains were significant in areas of instructional focus over the course of the year. Program students displayed superiority over the public school

group on most evaluation measures. Both students and parents exhibited very favorable opinions of the program. Preliminary results also indicated interest in career education on the part of the public schools.

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TABLE 1

CTBS Experimental Group Gains in Scale Scores

I. E1 Group n = 54

CTBS Subtests	Posttest Mean – Pretest Mean	t Value
Reading		
Vocabulary	1.7593	0.27084
Comprehension	24.8704	3.91746*
Total	17.4074	3.72070*
Arithmetic		
Computation	1.4444	0.22314
Concepts	13.0185	1.63035*
Applications	41.2778	5.62534*
Total	14.3333	2.86718*

II. E2 Group n = 38

CTBS Subtests	Posttest Mean – Pretest Mean	t Value
Reading		
Vocabulary	29.3947	2.92737*
Comprehension	12.0789	1.66775*
Total	18.8684	3.04251*
Arithmetic		
Computation	29.0278	3.42275*
Concepts	34.5000	4.18474*
Applications	35.8611	4.16555*
Total	34.4167	5.07426*

* $p < .10$ when $t \geq 1.31$ with $df \geq 30$

TABLE 2

Analyses of Covariance on Comparative
CTBS Gains In Scale Scores

I. Reading Vocabulary

Group	n	Pretest Mean	Posttest Mean	Adjusted Mean	Mean Difference
E2	38	539 6	564 0	567 7	
C	56	549 4	563 6	559 9	7 8

Source	S S	df	M S	F
Between	1382 6767	1	1382 6767	0 5475
Within	229799 8960	91	2525 2726	
Total	231182 4767	92		

p= 4613

II. Reading Comprehension

Group	n	Pretest Mean	Posttest Mean	Adjusted Mean	Mean Difference
E2	38	531 9	544 0	541 7	
C	56	525 4	538 0	533 2	8 5

Source	S S	df	M S	F
Between	1606 4858	1	1606 4858	0 8263
Within	176926 6700	91	1944 2492	
Total	178533 1588	92		

p< 3658

III. Arithmetic Computation

Group	n	Pretest Mean	Posttest Mean	Adjusted Mean	Mean Difference
E2	36	496 3	525 3	527 1	-
C	56	502 0	514 8	513 0	14 1

Source	S S	df	M S	F
Between	4342 2472	1	4342 2472	1 3489
Within	286503 3800	89	3219 1392	
Total	290845 6272	90		

p< 2486

IV. Arithmetic Concepts

Group	n	Pretest Mean	Posttest Mean	Adjusted Mean	Mean Difference
E2	36	504 8	539 3	543 7	-
C	56	516 5	544 7	540 3	3 4

Source	S S	df	M S	F
Between	251 1312	1	251.1312	0 0603
Within	370789 4100	89	4166 1732	
Total	371040 5412	90		

p< 8066

V. Arithmetic Applications

Group	n	Pretest Mean	Posttest Mean	Adjusted Mean	Mean Difference
E2	36	490 9	526 8	534 5	-
C	56	516 2	493 3	485.6	48 9

Source	S S	df	M S	F
Between	51230.7149	1	51230.7149	10 6309
Within	428893 5600	89	4819 0288	
Total	480124 2749	90		

p< 0016

TABLE 3

CMI Experimental Group Gains in Raw Scores

I. E1 Group n = 42

CMI Subtests	Posttest Mean – Pretest Mean	t Value
Attitude Scale	-0.6667	-0.65958
Occupational Information	-2.7857	-1.74409
Planning	-0.9268	-1.11812

II. E2 Group n = 50

CMI Subtests	Posttest Mean – Pretest Mean	t Value
Attitude Scale	1.1800	1.80475*
Occupational Information	1.1800	2.18074*
Planning	2.6939	4.25583*

*$p < .10$ when $t \geq 1.31$ with $df \geq 30$

TABLE 4

Analyses of Covariance on Comparative CMI Gains in Raw Scores

I. Attitude Scale

Group	n	Pretest Mean	Posttest Mean	Adjusted Mean	Mean Difference
E2	48	32 77	34 29	34 05	–
C	30	31 90	31 93	32 17	1 88

Source	S S	df	M S	F
Between	64 9778	1	64 9778	3 0556
Within	1594 8975	75	21 2653	
Total	1659 8753	76		p< 0846

II Occupation Information

Group	n	Pretest Mean	Posttest Mean	Adjusted Mean	Mean Difference
E2	48	14 15	15 46	14 35	–
C	30	10 67	8 20	9 31	5 04

Source	S S	df	M S	F
Between	397 0430	1	397.9439	23 8284
Within	1252 5300	75	16 7004	
Total	1650 4739	76		p< .0001

III. Planning

Group	n	Pretest Mean	Posttest Mean	Adjusted Mean	Mean Difference
E2	48	10 21	13 39	12 23	–
C	30	5 70	7 13	7 97	4 26

Source	S S	df	M S	F
Between	255 2877	1	255 2877	19.6710
Within	973.3350	75	12.9778	
Total	1228.6227	76		p< 0001

TABLE 5

Analyses of Covariance on Comparative ASA Gains in Raw Scores

I Attitude Toward Education in General

Group	n	Pretest Mean	Posttest Mean	Adjusted Mean	Mean Difference
E2	32	435 6	354 5	353 7	
C	56	337 2	335 7	337 6	15 1

Source	SS	df	MS	F
Between	4611 2247	1	4611 2247	0 8322
Within	470958 5300	85	5540 6887	
Total	475569 7347	86		p< 3643

II Attitude Toward School Curriculum

Group	n	Pretest Mean	Posttest Mean	Adjusted Mean	Mean Difference
E2	32	345 0	369 4	375 6	-
C	56	372 1	351 8	345 6	30 0

Source	SS	df	MS	F
Between	17835 5841	1	17835 5841	2 9649
Within	511322.0000	85	6015 5530	
Total	529157 5841	86		p< 0888

III. Attitude Toward School Resources

Group	n	Pretest Mean	Posttest Mean	Adjusted Mean	Mean Difference
E2	32	319 8	380 3	383 9	
C	56	337 5	324 9	321 3	62 6

Source	SS	df	MS	F
Between	78166 6852	1	78166 6852	19 8107
Within	335383 2900	85	3945 6858	
Total	413549 9732	86		p< 0001

IV. Attitude Toward School Counseling

Group	n	Pretest Mean	Posttest Mean	Adjusted Mean	Mean Difference
E2	32	282 5	340 0	342 8	
C	56	294 6	307 5	305 1	37 7

Source	SS	df	MS	F
Between	23361 4982	1	23361 4982	3 3917
Within	710772 5400	85	8362 0299	
Total	734134 0382	86		p< 0691

V. Overall Attitude Toward Learning Environment

Group	n	Pretest Mean	Posttest Mean	Adjusted Mean	Mean Difference
E2	32	328 2	361 8	363 2	-
C	56	334 6	330 3	328 8	34.4

Source	SS	df	MS	F
Between	24086 0750	1	24086 0750	5 7679
Within	354948 2200	85	4175 8615	
Total	379034.2950	86		p< 0186

TABLE 6
Student Opinion Survey

I. Opinion of Program

	Item	n	Total Mean	E1 Mean	E2 Mean
1	Have you liked attending the Career Education Program?	113	3.99	3.88	4.11
2	If you had it to do over again, do you think you would decide to participate in the Career Education Program?	112	3.50	3.12	3.92
3	Have the activities available in the Career Education Program been interesting to you?	113	4.02	3.64	4.43
4	In the Career Education Program have you felt that you could progress at your own rate?	112	4.37	4.05	4.70
5	Have you seen much of a relationship between your activities in the learning center and the careers you have learned about?	112	3.29	3.03	3.56
6	Do you get enough feedback about how well you are doing in the program?	112	3.17	2.88	3.48
7	Have you had enough choice in deciding the amount of time you spend at employer sites?	109	2.67	2.39	2.96
8	Have you had enough choice in deciding the amount of time you spend in learning academic subjects?	111	2.99	2.88	3.11
9	Have you had enough choice in deciding what you do at employer/resource sites?	112	2.77	2.52	3.04
10	Have you had enough choice in selecting the types of employer/resource sites you visit?	111	3.49	3.23	3.76
21	Through your experiences in the Career Education Program have you learned a lot about opportunities for the future?	112	4.26	4.10	4.43
23	Would you say the Career Education Program has helped you form career plans?	110	3.89	3.71	4.07
24	Would you say you've learned a lot while attending the Career Education Program?	111	4.04	3.84	4.24
25	How well organized and coordinated do you think the Career Education Program has been?	111	3.40	3.02	3.80
26	How would you rate the general quality of the Career Education Program staff?	112	3.90	3.62	4.20
27	How would you rate the personal counseling available in the Career Education Program?	110	3.65	3.21	4.13
28	How would you rate the career counseling available in the Career Education Program?	111	3.68	3.19	4.19
29	How would you rate the general quality of the Career Education Program employer/resources you've worked with?	112	3.75	3.50	4.02
	Averages	111.44	3.50	3.32	3.90

II. Opinion Comparative to Traditional Schools

	Item	n	Total Mean	E1 Mean	E2 Mean
31	In comparision with regular schools, how much opportunity did the Career Education Program provide you for learning about occupations?	113	4.50	4.29	4.74
32	In comparison with regular schools, how much opportunity did the Career Education Program provide you for general learning?	113	3.97	3.76	4.20
33	In comparison with past experiences in regular schools, how motivated are you to learn in the Career Education Program?	112	3.99	3.69	4.31
	Averages	112.7	4.15	3.91	4.42

Means on scale from 1 = low to 5 = high

TABLE 7

Parent Opinion Survey

I. Attitude Toward the Program in General

Items	Mean
1. How well does the Career Education Program compare overall with the past school experiences of your daughter/son?	4.47
2. If you had it to do over again, would you want your son/daughter to participate in the Career Education Program?	4.43
3. How well do you think your son or daughter likes the Career Education Program compared with past school experiences?	4.58
Averages	4.59

II. Benefits of the Program

Items	Mean
6. Have you received enough information about your son or daughter's progress in the Career Education Program?	4.00
7. In comparison with regular schools how much opportunity did the Career Education Program provide your daughter or son for learning about occupations?	4.76
8. What effect, if any, has the Career Education Program had on helping your son or daughter form career plans?	4.41
9. In comparison with regular schools how much opportunity did the Career Education Program provide your son or daughter for General Learning?	4.53
10. In comparison with past experiences in regular schools how motivated is your daughter or son to learn in the Career Education Program?	4.49
11. How would you rate the approaches to learning used in this Career Education Program?	4.45
Average	4.44

Means on scale from 1 = low to 5 = high.