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ABSTRACT

A collection of materials from the Tucson Model Cities Exemplary Vocational Education Program consists of a 43-page summary of the project report and seven appendixes on advisory board personnel, elementary forms and materials, junior high materials, high school materials, dissemination/outside activities, evaluation of the Skill Training Extended Day Program, and a lengthy, detailed third party final evaluation. The report concluded that students showed affective and motivational gains at all levels of the project. At the elementary level cognitive gains were demonstrated primarily at the 4-6 grade level; the junior high gains were shown both in the World of Construction and the World of Manufacturing; changes in career goals were observed at the high school level. Included is a five-page bibliography. (BP)

FINAL REPORT

Tucson Model Cities
Exemplary Vocational Education Program

Exemplary Project in Vocational Education
Conducted Under
Part D of Public Law 90-576

The project reported herein was performed pursuant to a Grant with the Bureau of Adult, Vocational, and Technical Education, Office of Education, U. S. Department of Health, Education and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Office of Education position or policy.

Project No. 361160
Contract No. OEG-0-71-4168(361)

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June 30, 1974

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ACKNOWLEDGEMENTS

A number of individuals and groups have contributed their time and talents in making the Project a success. In a large measure it has been the thoughtfulness and encouragement from the Tucson Public Schools Administrators and the teachers in the ten Model Cities Schools along with community personnel that has provided the basis for success in this Project. The expertise and advice received from the Exemplary Advisory Board, the State Department of Education and United States Office of Education have contributed greatly to the success of this Project.

Throughout the three years of this Project there were numerous persons outside the education world who provided advice to assist us in meeting the objectives set forth in the Exemplary Project. It has been a total team effort of these people that created the success this Exemplary Program has experienced.

TIME PERIOD COVERED BY THE REPORT:

July 1, 1971 through June 30, 1974.

GOALS AND OBJECTIVES OF THE PROJECT:

The overall goals of the Tucson Model Cities Exemplary Program are to broaden the occupational understandings of all pupils, help them to an awareness of their own potential, and train and place certain youth, particularly the actual and potential dropout, in employment. Work toward these goals is done in a total school environment, extending from the elementary school through the secondary level and reaches out to involve all pertinent elements of the community. These all-embracing goals are met through objectives which cluster in the following areas:

ALL GRADE LEVELS:

1. Formulation of an organizational structure that will articulate the vocational program within the Model Cities area for elementary through post-secondary students.

2. Dissemination and explanation of occupational information and materials developed by the Exemplary Program.

3. Provision of vocational educational services in the school setting and away from the school setting.

4. Upgrading the image of occupational education through work with the subcultures of the community.

5. Use of evaluative procedures to determine job awareness and aptitudes, abilities, and interests of students in the Program.

ELEMENTARY LEVEL:

6. Use of vocational resource person and a series of career kits to extend all aspects of the Program to the schools involved in the Project.

JUNIOR HIGH LEVEL:

7. Use of vocational resource person in planning for and structuring career activities to be incorporated in the regular curriculum.

8. Intensive counseling at schools involved in the Program, with special focus on identification and counseling of potential dropouts.

9. Use of skill development classes as work conditioners and vehicles for the transmission of vocational information.

10. Use of cooperative vocational programs to provide exposure to true work experience for Junior High School students.

11. Use of the multi-agency approach to the problems encountered by alienated youth and youth who dropout of the educationa programs; cooperation with manpower agencies.

HIGH SCHOOL LEVEL:

12. Facilitation of employment of program participants.

13. Maintenance of an instructional resource center to provide students with career planning information.

14. Establishment of placement services to assist all students in planning further training or acquiring employment.

PROCEDURES FOLLOWED:

Within the context of the general objectives of the Program, the following sequence of activities were followed:

One elementary resource teacher (K-6), one junior high resource person (7-8), a high school resource person (9-12), a high school career counselor (9-12), two bilingual aides, a secretary and a supervisor were acquired. Inservice workshops were planned and subsequently initiated and implemented for teachers and administrative personnel. An

Advisory Board was selected. Notices of the general program of the Exemplary Program were sent to all schools in the Model Cities area for staff participation. Media materials were acquired for use by teachers in their classroom. A curriculum guide was developed for grades K-6 as well as career kits on career awareness were developed. Resource persons from the community were involved in the total program as well as the State Office of Education and the local School District Number One. Special programs were set up for the under-achievers and potential dropouts at the junior high and senior high school levels. Initial evaluation forms were developed to determine the degrees of progress in each facet of the Program.

Plans have been reasonably concluded whereby the Program will be continued as an integral part of the Tucson Public Schools.

RESULTS AND ACCOMPLISHMENTS:

Records kept by career resource personnel and by the project director indicate that the delivery system has been functioning satisfactorily, making community resources and project-developed career materials available to classroom teachers.

At the elementary level teachers have made considerable use of the career education kits and for the most part were pleased with the content and organization of the kits. While assessment of information gains of elementary students in the project generally yielded significant results only at the upper grade levels, observations by teachers support continued use of the materials developed, if only for motivational and affective reasons.

Knowledge gains and strong positive attitudes toward the career education program were evidenced by the junior high school youngsters participating in the program.

At the high school level, project-developed tests were not sensitive enough to uncover significant knowledge gains among freshman project participants. However, students in skill-training programs very clearly attained skills needed for employment, and students placed on part-time jobs received high ratings from employers for their on-the-job performance.

On the whole, the project has had an impact on the classroom teacher and student, by drawing on the resources of the community and the special skills of the career

resource personnel to make career information a part of classroom instruction. In addition, the project has meant specific job training and increased employability for potential and actual dropouts participating in the high school SICS pack and extended day programs.

EVALUATION:

The evaluation by the third party evaluator indicates that all objectives were assessed and the processes monitored. The details of the evaluation over the past three years are presented and summarized in section 6e, Evaluation of the Project, in Appendix G.

CONCLUSIONS AND RECOMMENDATIONS:

At all levels of the Project, students showed affective and motivational gains. In the elementary program, cognitive gains were demonstrated primarily at the intermediate level where kit usage was greatest. Gains by junior high students were shown both in the World of Construction and the World of Manufacturing. Cognitive gains at the high school level were somewhat harder to document, although changes in career goals were evidenced. Extended day career programs helped students increase specific job skills and acquire new jobs.

The program at all levels was well received by teachers and students, and a number of projects and activities will be continued through state and local support after the program ends.

Recommendations include: 1) development of mini-workshops to acquaint teachers with the variety of career-related activities which can be related to kit use; 2) increased use of videopack for taping on-the-job interviews; 3) continuation of extended-day skills training courses for dropouts, and 4) the career information center for interested high school students.

PROBLEM AREA TOWARD WHICH THE VOCATIONAL PROJECT WAS DIRECTED:

While schools are preparing students in the academic areas and are readying them for entrance to college, a very small percent of the total enrollment of pupils is being prepared for the actual role that they will play in the world of work.

The Tucson Model Cities Exemplary Project was concerned with in-school youth and high school dropouts not employed who are living in the Model Cities attendance area of the participating schools. Intensive work with many of these youngsters who were identified as potential dropouts were to return to Tucson High School and acquire entry-level skills and complete their requirements for high school graduation or equivalency.

The Program for the in-school youth served three basic levels: Elementary (K-6, the Junior High (7-8), and the High School (9-12).

The seven elementary schools involved in the Project worked around the theme of Career Awareness.

The Junior High level of concentration centered around the continuation of career development but with greater emphasis placed upon the exposure to occupational experiences. In the Industrial Arts Program, the World of Construction and the World of Work were stressed.

In High School, emphasis is on the development of knowledge for gainful employment, development of basic skills, and attitudes. Simulated work experiences and coöperative work experiences are also utilized. The career program is a non-blocking career ladder.

A review of research concerning new approaches to occupational education as sources of information were:

a. Career Development Activities, Grades 5, 6, and 7, Abington School District, Pennsylvania 1968 (Ed. 022 219 MF-76 HC-7, 40 146 P) Curriculum materials for use in the vocational guidance of students in grades 5, 6, and 7 are presented. Learning activities are utilized in the classroom to show students the processes through which vocational decisions are made.

b. Jeffries, D. The Needs of Inner City Children for Career Guidance. Elementary School Guidance and Counseling, 1968, 2 (4) 268-275. The inner-city child lives in an environment which creates a low concept, thus lowering his level of aspiration and career development and perpetuating his self-defeating mode of living.

Darcy, R. L. An Experimental Junior High School Course in Occupational Opportunities and Labor Market Processes. Final Report BR-5-1203. Ohio University, Athens. (ED 022 056 MF 225 HC-30, 69 611 p).

An experimental project initiated to provide schools with instructional materials, evaluation instruments and a realistic classroom educational program for bridging the gap between school and work.

PROJECT GOALS AND OBJECTIVES:

ALL GRADE LEVELS:

1. Formulation of an organizational structure that will articulate the vocational program within the Model Cities area for elementary through post-secondary schools.

   1.1 The Project Administrator will work with the Advisory Board in the interviewing and hiring of career resource personnel at the elementary, junior high and high school levels, as evidenced by employment records.

   1.2 The Project Administrator will keep in regular contact with the career resource personnel at all levels, as indicated by personnel logs.

   1.3 Project staff will work cooperatively with community agency personnel as indicated by personnel logs (see also 11.1 and 15.1).

2. Dissemination and explanation of occupational information and materials developed by the Exemplary Program.

   2.1 The elementary resource person will make materials available to teachers in the classroom, and will conduct workshops to explain the use of these materials, as indicated by his log and other records kept by the resource person.

   2.2 The junior high school resource person will develop and make available to teachers videotapes on career education, as indicated by logs and records.

   2.3 The junior high school resource person will organize a careers day, to be evaluated through responses to student questionnaires.

   2.4 The high school career information resource director will make films and other career information available to teachers, as indicated by logs and records.

   2.5 A brochure and a film will be developed under supervision of the project director to explain the scope and purpose of the project to

interested personnel in and outside the schools, as evidenced by these tangible products.

2.6 Periodic displays depicting relevant project activities will be made and prominently exhibited at the project central office and elsewhere, as evidenced by the Administrator's records.

3. Provision of vocational educational services in the school setting and away from the school setting. This is discussed in detail under the different grade levels. See especially objectives 6.5, 7.1, 13.3.

4. Upgrading the image of occupational education through work with the subcultures of the community.

4.1 Career resource personnel at all grade levels will hold workshops and open houses for parents and interested members of the community, as indicated by their logs.

5. Use of evaluative procedures to determine job awareness and aptitudes, abilities, and interests of students in the program.

5.1 Career personnel will use existing standardized tests of aptitudes, abilities, and interests on an individual basis as needed, as evidenced by their logs and records.

ELEMENTARY LEVEL:

6. Use of vocational resource person and a series of career kits to extend all aspects of the program to the schools involved in the project.

6.1 Pupils in the program will acquire more information about careers than pupils not in the program, as assessed by performance on a Career Awareness Test.

6.2 Pupils in classes in which teachers attempt to reach goals by using specified objectives and activities make greater gains in career information than do pupils in classes in which techniques for reaching goals are left to the teacher. This objective was dropped after the second year of the project, and 6.2a substituted.

6.2a Students exposed to a specific career kit will show greater mastery of career information in that area than students not directly exposed to that kit, as measured by performance on a criterion referenced career kit test.

6.3 Pupils will learn to work together cooperatively in projects and activities, as assessed by responses to a teacher questionnaire.

6.4 Hands-on activities will elicit participation from pupils, as assessed by responses to a teacher questionnaire.

6.5 Community resource people will be utilized in the classroom and on field trips, as evidenced by the logs of the vocational resource person.

JUNIOR HIGH LEVEL:

7. Use of vocational resource person in planning for and structuring career activities to be incorporated in the regular curriculum.

7.1 The vocational resource person will assist in utilization of community resource persons, as reflected by log information on arrangements for speakers and field trips.

7.2 The vocational resource person will meet with counselors and teachers to assist in development of career information and mini-courses for use with students, as indicated by log information.

8. Intensive counseling at schools involved in the Program.

8.1 Vocational counseling will be given to students in small groups, by the vocational resource person and the counselor, as reflected by log information from counselors and resource person.

9. Use of skill development classes as work conditioners and vehicles for the transmission of vocational information.

9.1 Students participating in the World of Construction and World of Manufacturing Programs will display greater understanding of manufacturing and construction careers than students in a regular vocational program. This objective was dropped, because of difficulty in obtaining a control group, and replaced by:

9.1a Students participating in the World of Construction and World of Manufacturing Programs will display increased understanding of career information in the manufacturing and construction areas as reflected by performance gains on locally developed instruments.

9.2 Students participating in the World of Construction and World of Manufacturing Programs will see a relationship between school work and vocations in these areas, as measured by responses to a student questionnaire.

10. Use of cooperative vocational programs to provide exposure to work experience for junior high students.

10.1 Through cooperation between high school and junior high schools, several students will be given access to the Tucson High School welding shop and to the use of its equipment, as evidenced by the logs of the vocational resource person.

11. Use of the multi-agency approach to the problems encountered by alienated youth and youth who drop out of the educational programs; cooperation with manpower agencies.

11.1 The vocational resource person will draw on community resources of various agencies, as indicated by his logs.

HIGH SCHOOL LEVEL:

12. Facilitation of employment of program participants.

12.1 Students participating in the exemplary program for crisis-prone students will be placed and will

perform satisfactorily on the job, as indicated by information on employer evaluation forms.

12.2 Students participating in the exemplary program for crisis-prone students will learn skills needed for making applications and getting jobs, as indicated by pre - post comparison of scores obtained on the SICS Packs test.

12.3 Students participating in the extended day programs will master job skills, as indicated by data on the performance checksheets, to be maintained by their instructors.

13. Maintenance of an instructional resource center, to provide students with career planning information.

13.1 The director of the instructional resource center will hold regular orientation sessions for freshmen, as indicated by his logs.

13.2 Students participating in the freshman program will develop an awareness of vocations, as indicated by their pre - post performance on a Career Awareness Test.

13.3 The director of the resource center will aid in the utilization of community resource people, through field trips and guest speakers, as indicated by his log.

14. Establishment of a placement service to assist all students in planning further training or acquiring employment. Responsibility for this was split between the director of the instructional resource center and the teacher-counselor coordinator. As no placement service as such was established, this specific objective area was dropped.

15. Use of the multi-agency approach to the problems encountered by alienated youth and youth who drop out of the educational programs; cooperation with manpower agencies.

15.1 The teacher-counselor coordinator will work with community agencies in obtaining program referrals, job placements, and additional services for project participants, as indicated by his log.

15.2 Dropouts will be referred to the extended day program by Neighborhood Youth Corps; class enrollments will indicate participation levels.

16. Use of cooperative vocational programs and skill development classes to provide students with work preparation and actual work experiences.

16.1 Students participating in the extended day programs will master job skills, as indicated by data on the performance checksheets, to be maintained by their instructors.

17. Reinstatement of Model Cities dropouts in school, and placement of these youth in training programs.

17.1 Dropouts will be referred to the extended day program by Neighborhood Youth Corps; class enrollments will indicate participation levels.

17.2 Students participating in the extended day program will re-enter regular high school programs or work toward their GEDs, as indicated by records of the teacher-counselor coordinator.

17.3 Students participating in the extended day programs will master job skills, as indicated by data on the performance checksheets, to be maintained by their instructors.

GENERAL DESIGN OF THE VOCATIONAL EDUCATION EXEMPLARY PROGRAM:

The Exemplary Program includes seven elementary schools, two junior high schools and one high school in the Model Cities area.

The main thrust of the Model Cities Exemplary Vocational Education Program is an emphasis on hands-on experiences for the students.

DESCRIPTION OF THE GENERAL PROJECT DESIGN AND THE PROCEDURES FOLLOWED:

Staff Composition is as follows:

John T. Michel, Director

Nancy L. Coyle, Secretary

Paul A. Mihalik, Elementary Resource Person

Richard A. Morganti, Junior High Resource Person

Robert W. Myers, High School Placement Coordinator

G. William Turner, High School Resource Person

Rosemary Lizardi, Elementary and Junior High Aide

Anna Quinlan, High School Aide

ELEMENTARY GRADES:

In the elementary schools, this is accomplished through the use of career kits. These kits are footlockers of various sizes which contain tools, equipment, supplies, and or books which represent different occupations and explain various aspects of the careers represented by the kits.

Kits now represent careers in horticulture, medicine, meterology, dentistry, ecology, geology, carpentry, plumbing, typing, sewing, cooking, supermarkets, cosmetology, crime-fighting, and photo-journalism.

Guides are available with the kits for use by teachers if desired. The guides suggest activities and objectives for the use of the kits. The teachers generally use the kits for two weeks, after which time the kits are rotated among other teachers.

Supplementing the career kits are field trips and resource people who visit classrooms to discuss careers.

JUNIOR HIGH GRADES:

The junior high school program emphasizes the use of "The World of Construction" and "The World of Manufacturing" programs in which the students actually gain experience in employing skills in construction and manufacturing techniques.

An example of the construction skills employed are carpentry, wiring, roofing, and sheetmetal used in the construction of small scale models of portions of homes.

An example of the manufacturing experiences offered is the manufacture of small rockets which can be and are actually launched in flight.

Field-trips and career days are supplemental aspects of the junior high program as well as the use of T-V video tapes which present various construction and manufacturing projects taking place in the Tucson vicinity.

HIGH SCHOOL:

The high school program has two principle objectives. One objective is the continuation of the career awareness activities such as field trips, resource speakers, career days, and the utilization of a career information center which contains numerous pamphlets, booklets, guides and other materials offering information on careers.

The second aspect of the program has the objective of assisting crisis-prone students.

The emphasis here is to attempt to help these students recognize the correlation between adequate preparation and success in finding a job, and holding a job successfully.

This program has been somewhat successful in preventing some students from dropping out of school, and returning some drop-outs to the school environment by placing them into on-the-job training with employers in the Tucson area. The high school program attempts to place graduates into jobs locally, and to help the students recognize their needs, abilities, and interests so they can make decisions concerning their career choices.

INSERVICE:

Inservice sessions are held as requested by teachers or deemed necessary by staff and director.

EVALUATION:

An internal and an external evaluator operated within this project conducting pre - post tests, "career-kit" tests, and analyzing specially designed teacher questionnaires.

INSTRUMENTS:

Central to the evaluation of this project were a number of staff-developed instruments. In addition to these measures, logs kept by all resource personnel detailed their contacts with teachers, representatives of local agencies, and community resource persons outside the schools.

ELEMENTARY LEVEL:

Two types of instruments were developed for use at this level: A career awareness test and, later, a career kits test. The career awareness test originally consisted of two forms developed at the start of the second year of the project. The form for grades K-3 was a 32-item multiple choice picture test; the form for grades 4-6 was a 35-item multiple choice written test. Both group tests were administered in the classroom; they were read aloud to the students, who recorded their own responses.

Initially, tests were prepared to determine the elementary student's knowledge of careers. Current first, second, and third grade textbooks were surveyed to ascertain which careers were frequently mentioned in the literature. Community helpers and other frequently mentioned vocations were subsequently selected to be drawn with appropriate working clothes. These pictures were assembled into a booklet of multiple response questions wherein the student would be asked to recognize the vocation according to the clothes worn and tools used by the worker. This test was devised for grades K-3. The purpose of the test was to see if children could recognize different workers.

An awareness of the same vocations was appraised for students in grades 4-6, but at a higher level of competency. In the test at these grade levels, the student was asked to select the vocation that fitted a job description from multiple choices. Thus, the tests proceeded from a level of recognition (Grades K-3) to a level of description (Grades 4-6) for some relatively common jobs in society.

A A second part to each level of the test was also devised to assess the student's recognition of tools used in "hands-on" activities (Grades K-3), or their understanding of the uses of such tools (Grades 4-6). The tools chosen for the instrument were those used in the "hands-on" tool carts placed in each elementary school in the program.

Both Career Awareness Surveys (for the different grade levels) were pilot tested on one elementary school before administration to the schools in the career program. An item analysis of both tests revealed questions with poor response items, which made the question comparatively easy. The K-3 instrument, through an analysis of mean scores by grade level was found to be too easy for grades two and three. An initial random selection of responses was then abandoned for easy items and choices were selected by the evaluator which on face value would appear to require finer discrimination by the student. For the 4-6

measure, teacher feedback indicated the reading level was too high for fourth grade students, and mean scores by grade, supported this contention. The format of this test was subsequently revised so that students would read only one description for each test item. Words which appeared to be above fourth grade reading level (as compared to the Botel reading list) were deleted and easier substitutions were made if possible. Both pretests were then administered to five schools in grades K-6 during the month of October, with post-tests in May. At the end of the second year of the project, it was determined that students were scoring so high on the K-3 test at the upper levels as to restrict scoring range. Accordingly, the K-3 test was retained for K-1 only. New written multiple choice items were added to the old form to make the new 46-item 2-3 level form.

A limited version of the career kits test was first developed in the winter of the project's third year, to provide a pilot criterion-referenced evaluation of classroom kit usage. For the year-end evaluation an expanded test was developed on three levels; K-1, 2-3, and 4-6. Each level of the test consisted of four items covering main ideas and suggested uses of a particular kit found to be used at that grade level. The K-1 test assessed six kits (24-items); 2-3 assessed seven kits (28-items); 4-6 assessed twelve kits (48-items).

In addition, a questionnaire was presented to all teachers who had participated in group "hands-on" career activities. The purpose of the questionnaire, Elementary School Survey was to gauge 1) how well students had cooperated in career projects from the guide, and 2) how much they had participated in "hands-on" career activities. Five questions were asked relating to cooperation and four were asked in regard to participation. Responses were forced-choice (all the time - Never) using a five point Likert type scale. An open-ended question for comments was also included. The questionnaire was mailed with a cover memo directly to each participating teacher, explaining the reason for the survey.

A data collection sheet was prepared in the project's second year by the internal evaluator to be used by the teachers using the Career Guide. On this form, teachers were asked to record which objectives and activities were accomplished, and specifically which students had completed the objective and which had not done so. Teachers who attended a workshop given by the program director and elementary resource assistant received this collection form with an explanation of its use by the internal evaluator. The format of the sheet paralleled the sequence of the chapters in the Curriculum Guide.

Description of Activities which teacher participants in the program completed were also collected by the internal evaluator and the elementary school resource assistant in the project's second year. Initially, forms were sent to the teachers, but response was poor in regard to numbers returned and information submitted. It was therefore decided that a short visit and talk to each participating teacher every month and a half might be more suitable. The evaluator and resource person subsequently collected evidence about career activities in this manner.

The data collection sheet and description of activities forms developed for use in assessment of curriculum guide usage were not used in the third year of the project, in keeping with a transfer of emphasis from the curriculum guide to the career kits.

Near the end of the third year of the project, an eleven-question feedback card was developed to provide additional information on kit usage, concerning the manner and extent to which the kits were used, teacher assessment of student response, and teacher suggestions for improving the kit.

JUNIOR HIGH LEVEL:

At the core of the junior high school program were the courses, World of Construction and World of Manufacturing, offered to seventh and eighth grade shop students. The internal evaluator worked with the classroom teachers to develop instruments to assess acquisition of content in these two courses. The World of Construction test is a 39-item multiple choice test concerned with identification of tools and construction terms, as well as information on career procedures in that area. The World of Manufacturing test is a similarly-devised 51-item multiple choice instrument. These tests were administered near the start, and again near the completion of the school year. They were read aloud by the teachers to their class groups, with responses recorded by the individual students.

Near the end of the second school year, a Junior High School Survey was prepared for both teachers and students to determine 1) if the World of Construction and World of Manufacturing career courses were interesting to students and 2) whether such courses seemed to have some relation to jobs the students might perform in the future. The teacher questionnaire asked the industrial arts teachers to compare the above courses to the more typical vocational programs, using a three-point scale (from "more than" to "less than").

The student questionnaire asked several questions relating the courses to future work, and also specific questions about each course, The World of Construction and The World of Manufacturing. The questionnaires were collected by the internal evaluator, analyzed and summarized at the end of the second year. In the third year of the project, only the student form was administered.

"Career Day" programs were held in the second and third years of the project. To assess these, a questionnaire was devised, which asked the students to identify the career groups they listened to, choose the speakers they enjoyed most and why, and indicate their general feelings about the day. A similar questionnaire was given to the faculty, which asked how effective the planning for the "Career Day" seemed to be. The format for this questionnaire was open-ended. The responses from all of the students and teachers at the school were later analyzed and summarized by the evaluator.

Guidance classes were begun at one junior high school in the project's second year by the career resource assistant to help students, who from previous attendance and behavior records might be classified as potential dropouts, either from junior high or high school. The evaluator assisted the resource person in obtaining the Picture Interest Inventory, a standardized test by Kurt P. Weingarten. This measure was administered to such students to probe what careers they might be interested in, and as a starting point for discussing some of their desires and career aspirations. The test consists of pictures of jobs in which the student can indicate his or her amount of interest, rather than being forced to choose the best answer from a group in which he or she may or may not have any interest.

HIGH SCHOOL LEVEL:

Instruments prepared for the career program operating in one senior high school included those for the Career and Cooperative Work-Counseling Center for regular day students as well as for the Neighborhood Youth Programs for students not attending regular school.

For the regular and extended day program, a form was devised in the project's second year to identify how and why students were being referred to the counseling-work program and the career resource assistants. This form was subsequently revised based on suggestions by the high school counseling and job resource assistants. Another form, a Memorandum of Training Plan for the student in the cooperative

work plan was revised by the evaluator so that the student's goal and employer's goal in work were stated together and could be easily compared. Also the space for work experiences and skills to be acquired by the student and given by the employer was expanded on the form. A relatively simple, open-ended evaluation sheet was prepared for teachers working with the career resource assistant to develop career curriculum objectives, describe and evaluate the activity. In the third year of the project, use of these two forms was discontinued, although less-formally structured records were still maintained by the teacher-counselor coordinator.

An evaluation form was provided to employers of project students in the third year, and summary data were reported by the teacher-counselor coordinator to the internal evaluator.

In the Neighborhood Youth programs operating out of the high school, the evaluator assisted the instructor for the Health Careers course in developing a pretest (or entry level test) during the second year of the project. Items were selected from quizzes given previously by the instructor, which were designated as more important by the teacher. These items were combined to form the pretest for the latter half of the course. The test was then given to all students in the program and approximately five months later as a posttest to all students completing the course. Mean scores were calculated and compared for both the pretest and posttest by the evaluator. Students who failed the posttest and other course requirements were later given a modified or parallel form of the test prepared by the evaluator.

In Auto Mechanics, a Trainee Skills Assessment checklist was assembled by the evaluator. The data collecting instrument listed the skills necessary for three jobs requiring mechanical skills, namely 1) service station attendant, 2) small garage mechanic, and 3) large garage mechanic. The form requested that the instructor check off skills as they were acquired by each student relating to the three jobs.

Near the end of the second school year, a survey was made of teachers working with students from the Neighborhood Youth program who had dropped out of the regular high school program. The questionnaire asked the instructors in Health Careers, Auto Mechanics and Welding for information about the benefits of their specific programs for such students.

In the third year of the project, there were two Neighborhood Youth Corp extended-day courses, one in office skills and another in welding. These were each assessed by individually-administered skills assessment checklists, on which instructor were to indicate the date on which a student mastered a specific job subskill.

The career center was established to give high school students an opportunity to explore career clusters and specific vocations which they might be considering for the future. An Interest Form was constructed to be given to each student using the center. The form was intended to see what the student already knew about vocations in which he expressed an interest. Also, the instrument would give the career resource assistant some information about how and in what areas the student should be counseled. This form was intended more as a tool to assist staff in the career center in advising students than as a means of project assessment. Its occasional use in this manner was continued into the third year of the project, although no records were kept by the evaluator.

In the third year of the project, all freshmen were exposed to a short career awareness course, given in their English classrooms and the career center. To assess this program, offered to different classes throughout the year, the internal evaluator developed a test based on the instructor's course syllabus. As the course was modified over the course of the year, the test also was modified to reflect a change in emphasis. In its final form, the test consisted of 22 multiple choice items on knowledge of general career information presented in the program, and 14 multiple choice items on knowledge of two specific careers (7-items on each) chosen for further study by the participants. The test was administered at the start and end of each short course.

In the second year of the project, a course was developed by the cooperative work counseling assistants. Called the SICS (Student Individual Career Source) Packs Survey, it contained units on 1) Finding a Job, 2) Interviews and Applications, 3) Staying on the Job, 4) Money Matters and 5) Attitudes toward Work. The evaluator devised a 50-item multiple-choice, matching test to appraise the student's knowledge of these areas. This instrument was given to all students completing the course. The test scores were then analyzed and summarized by the internal evaluator. At the start of the third year of the project, some modifications were made in the language of the test, to facilitate comprehension. However, the number of items and content covered remained essentially the same. The test was administered to participating students at the start and finish of the 1973-74 year. Students who joined the project in midyear were not included in analysis of these data.

RESULTS AND ACCOMPLISHMENTS:

Results and accomplishments of the project are detailed below, as they relate to specific project objectives. The number preceeding each description refers to the objective in that area (see Section 6-B).

1.1 The Advisory Board was made up of Model City Residents, Model Cities Administrators, School District Administrators and local civic leaders. All Exemplary employees were interviewed and hired by this Board.

1.2 Personnel logs for the 1973-74 year indicate that the project director met fifteen times with the elementary resource person, eleven times with the junior high school resource person, and twelve times with the senior high school resource person. In addition, three general staff meetings were held during the year, and another twenty-three meetings were held with the evaluation staff.

1.3 Logs of the project director indicate meetings were held with representatives of Pima Community College, the University of Arizona, the Follow-Through Project, and Neighborhood Youth Corps personnel. Community contacts at specific grade levels are discussed in 11.1 and 15.1 below.

2.1 The logs of the elementary resource person indicate that he met with teachers 212 times during the 1973-74 school year. In addition, he was responsible for the circulation of career kits in the schools, and held a number of workshops on kit usage and evaluation. A total of 54 teachers in seven elementary schools participated in the K-6 program. A total of 1,400 students participated in some degree in using the twenty-two footlocker "career Kits" with teacher guides.

Most kits were signed out for two weeks at a time, and were probably handed around from one teacher to another within a school during that period. Accordingly, the teacher usage figures should be considered as minimums, as they only indicate the number of teachers signing up for a kit. Figures are: Adding Machines - 14 teachers; Cameras-photojournalism - 12 teachers; Career Books reading kits - 45; Cooking-food services - 28; Cosmetology - 28;

Crime fighting - 7; Dental careers - 11; Ecology careers - 19; Gardening-horticulture - 7; Geology - 18; Medical Careers - 28; Plumbing - 19; Role Playing - 15; Science - 12; Sewing - 16; Supermarket - 31; Transportation - 25; and Typewriters-office careers - 15. An additional kit, on careers in music and the arts, was developed too late in the year to be circulated. (Kits do not total twenty-two because that figure, mentioned above includes duplicates.)

Apart from the kits, a series of King Feature Career Comic Books were made available. Thirty-five of the teachers are known to have used these in their classes. Numerous film strips were also provided for classroom use.

Four workshops were held for teachers during the 1973-74 academic year:

October 8-10: This general orientation workshop was attended by fifty of the participating teachers. The resource person, two outside consultants who had worked on kit development, the project director, and the internal evaluator worked with teachers during these sessions.

March 6-7: Eighteen teachers participated in this workshop on kit evaluation.

April 30: Thirty-two teachers were involved in this one-day workshop to discuss end-of-year testing on the career kits.

At the request of teachers, an informal fourth workshop was developed to discuss extended use of the photojournalism kit. Twelve teachers took part in this workshop.

Responses to feedback cards included with the kits were generally positive. Of forty-six responses to sisteen kits scored, forty-two teachers said they intended to use the specific kit again next year. In forty cases, student reaction was described as very good (fair in three cases, poor in one, no answer in the remaining cases). Teacher reaction to the kits was very good in thirty-seven cases (average in seven cases, no answer for the remainder). In forty-one cases, the kit was

seen as a self-contained unit, with no further information or assistance needed to use it. Remaining responses to this last item were either no response, or were due (in two cases) to loss or misplacing of equipment from a kit toward the end of the school year. The small total number of responses to be analyzed is due to the fact that the feedback cards were not included in the kits until rather late in the second semester.

2.2 The junior high school resource person has developed ten tapes during his two years with the project. These tapes include interviews on the job with a bricklayer, a construction worker, a laborer, as well as the talks of guest speakers, and tapes on job interview procedures.

Mini-courses developed by the resource person for inclusion in regular classroom untis have covered attitudes toward work, interviewing for jobs, and participation in the democratic processes of government.

2.3 During the Spring of 1973 and 1974, a Career Day was held at one of the two project's junior high schools. Each student attended three to four career presentations, given by resource persons from twenty-five different occupations. At each event, approximately 700 students attended the presentations. The effectiveness of each event was evaluated through a subsequent questionnaire given to both teachers and students at the school. A systematic sampling of the returned questionnaires was made and the data analyzed.

Students ranked their preference of career speakers, which they had visited during the day and indicated whether they would like to have a Career Day the following year. An analysis of the student responses revealed that approximately nine out of ten students wanted to have the event again, both in 1973 and 1974. The response of teachers to the questionnaire showed that almost 95% of the teachers believed that the Career Day had been helpful to students by exposing them to unfamiliar areas of work. The planning and organization of both career days was rated as being "good" by a majority of the teachers, and like the students, the faculty

indicated that the event should be continued the following school year.

2.4 The high school resource person conducted inservice with six teachers. In addition, he made possible the scheduling and distribution of forty-one, which gave 1,500 students an opportunity to see careers on the screen. Through the luncheon speaker program, students had the opportunity to listen to twelve different addresses by representatives of different occupations in the Tucson work community.

The career information center itself included: career information tapes and tape players; tape-filmstrip combinations and a machine for their use; the career card series distributed by Careers of Largo, Florida; career comics; approximately 5,000 brochures from private companies; Career World magazines; information on the current job market; free materials available for the taking to interested students. (See also 13.3, below.)

2.5 A brochure was developed in September of 1973. This brochure explains the goals and objectives of the Exemplary Project. Over 1,000 brochures have been given out to interested personnel at the local, state, and national levels. A film describing the Exemplary Program was developed by the Tucson Public Schools Broadcasting and Television Department. This film was used to explain the project to local groups, visitors from out of state, and at a Regional IX Conference held in Covina, California.

2.6 Monthly displays showing relevant project activities were shown at local shopping areas, schools and through the districts display window.

Displays were also made up for local and state education fairs.

3. Objectives in this area, as mentioned in 5-B above, are discussed in the following sections: 6.5, 7.1 and 13.3.

4.1 Many workshops were held during the three years of the project. These workshops were held to explain the concepts of the Exemplary Program. Many local civic organizations which held workshops were the

Dental Study Clubs, Dental Auzilary, Lions Club, College of Education, Department of Guidance and Counseling, Department of Elementary Education, Northern Arizona University, Department of Vocational Education, etc.

Open houses were conducted to familarize parents with the program at all schools involved in the project.

5.1 Instruments were developed to assess career awareness, mastery of career kit content, and classroom kit use, at the elementary level; mastery of the World of Construction and World of Manufacturing course content, and effective response to career activities, at the junior high level; and the success of the various career program activities at the high school level. These instruments are described in detail in Section 6-C, above. Findings obtained with the instruments are detailed below under the specific objectives which they were designed to evaluate.

5.2 One existing standardized instrument was used in the project. This, the Picture Interest Inventory (described in Section 6-C, above), was used as a starting point for group counseling activity at the junior high school level.

6.1 The Career Awareness Test, a general measure developed to assess changes in student awareness for students participating in the Program, was given the second year of the Program at two levels, grades K-3 and 4-6. The test was administered, both pre and post, for two consecutive years. The third year, the K-3 test was split into two levels, K-1 and 2-3, and the 2-3 test subsequently expanded because of the low ceiling of the test for that level.

Results for the 1972-73 and 1973-74 school years are summarized by the external evaluator (see VII. Summary of Evaluation Questions, Tables I and II). Clean separations between the control, experimental and innovative groups were not obtained the second year because of practical considerations in implementing the program. The third year of the program, a separate school to be used as a control group was chosen and the innovative and experimental groups were collapsed into one group.

One problem in establishing a control group the third year was encountered in that the school chosen, Tolson Elementary, had achievement scores in reading in the Spring of 1973 which were comparable to at least some of the seven elementary schools participating in the third year of the Program. Also, the ethnic distribution of students was similar at Tolson to at least some of the participating schools. However, over the summer and during the 1973-74 school year, Tolson acquired a large number of new students, which changed the characteristics of the school and made it less similar to the seven participating elementary schools of the program. For example, forty-nine students in grade four at Tolson had a mean stanine in reading of 3.31, whereas in grade five for sixty-one students, the mean stanine in reading had increased to 4.05.

6.2 During the second year of the program, as Career Guide Survey Test was developed around specific objectives and activities contained in the Curriculum Guide, which was used by participating teachers. Two levels of the test were administered, one for grades 1-3, and another for grades 4-6.

Tables three and four show the results for both levels of the test for specific objectives and activities. Essentially, in grades 1-3, no significant differences in achievement were found between the experimental, innovative and control group after adjustments had been made for initial group differences. In grades 4-6 however, the experimental group (those using the Curriculum Guide) performed significantly better ($p < .05$) than both the innovative group who did not have access to the Curriculum Guide and the control group which did not participate in any of the activities.

TABLE 1

KIT ASSESSMENT BY GRADE LEVEL AND USE

		Grade Level						
		Kindg.	1	2	3	4	5	6
	No. Kits Used	24 possible points		28 possible points		48 possible points		
CONTROL SCHOOL	0	$\bar{X}$ = 16.85 S = 4.31 N = 20	$\bar{X}$ = 18.28 S = 2.60 N = 57	$\bar{X}$ = 13.88 S = 3.89 N = 50	$\bar{X}$ = 14.85 S = 3.97 N = 55	$\bar{X}$ = 19.57 S = 6.79 N = 56	$\bar{X}$ = 27.26 S = 7.11 N = 46	$\bar{X}$ = 26.15 S = 7.61 N = 73
EXPERIMENTAL SCHOOLS	0			$\bar{X}$ = 9.31 S = 3.66 N = 26				
	1	$\bar{X}$ = 21.29 S = 1.49 N = 21	$\bar{X}$ = 17.86 S = 2.41 N = 14	$\bar{X}$ = 9.00 S = 3.19 N = 40	$\bar{X}$ = 14.28 S = 4.79 N = 71			
	2		$\bar{X}$ = 18.74 S = 2.25 N = 27	$\bar{X}$ = 15.69 S = 4.83 N = 65		$\bar{X}$ = 20.37 S = 9.34 N = 63		
	3		$\bar{X}$ = 18.07 S = 1.94 N = 14	$\bar{X}$ = 12.67 S = 4.28 N = 18		$\bar{X}$ = 23.44 S = 8.07 N = 25	$\bar{X}$ = 24.64 S = 6.66 N = 135	
	4					$\bar{X}$ = 18.74 S = 5.26 N = 27		$\bar{X}$ = 25.57 S = 8.18 N = 21
	5							$\bar{X}$ = 24.98 S = 6.47 N = 79
	6		$\bar{X}$ = 17.09 S = 2.52 N = 23				$\bar{X}$ = 25.46 S = 6.32 N = 81	

KIT ASSESSMENT GRADE LEVEL AND USE

	No. Kits Used	Grade Level: Kindg. 1 — 24 possible points	Grade Level: 2 3 — 28 possible points	Grade Level: 4 5 6 — 48 possible points
Experimental Schools	7			
	8			$\bar{X}$ = 30.12 S = 7.77 N = 25
	9			$\bar{X}$ = 31.14 S = 6.04 N = 28
	10			$\bar{X}$ = 28.75 S = 6.08 N = 24
	11			
	12			$\bar{X}$ = 20.39 S = 7.12 N = 28

$\bar{X}$ = Mean Raw Score
S = Standard Deviation
N = Number of Students

TABLE II - SPECIFIC KIT EFFECTIVENESS FOR GRADE 6

	Camera	Horti-culture	Ecology	Crime Fighters	Dental	Geology	Foods Services	Career Reading	Health Services	Weather	Cosme-tology	Plumber
No Kits	N=67	N=67	N=67	N=67	N=67	N=67	N=67	N=67	N=67	N=67	N=67	N=67
	M=2.48	M=2.04	M=2.16	M=2.16	M=2.33	M=1.64	M=2.30	M=1.91	M=1.88	M=2.37	M=2.22	M=2.57
Control	S= .96	S-1.01	S=1.24	S= .93	S= .96	S=1.07	S=1.26	S=1.19	S= .94	S=1.14	S=1.03	S=1.03
7-12 Kits Used	N=48	N=24*		N=48	N=28		N=28*	N=24*	N=28*			
	M-2.52	M=2.92		M=2.31	M-2.61		M=3.29	M=2.58	M=2.32			
	S= .82	S=1.44		S= .85	S= .57		S= .81	S=1.41	S=1.09			
30-C	N=28*	N=52	N=76	N=28*	N=48	N=76*	N=48*	N=52	N=48	N=76	N=76*	N=76*
	M=2.93	M=2.12	M-2.04	M=2.50	M=2.65	M=2.24	M=3.02	M=2.15	M=1.98	M=2.68	M=2.66	M=3.16
	S= .98	S=1.03	S=1.00	S= .75	S= .96	S=1.20	S=1.02	S=1.11	S=1.04	S=1.11	S=1.14	S= .97

N=Number of Students
M=Average Score
S=Standard Deviation

*Significantly greater than at least one other group for that kit at the.05 level of confidence.

Table 3

MEAN PRETEST CAREER AWARENESS TEST (CAT), CAREER GUIDE SURVEY (CGS) AND ADJUSTED CRITERION SCORES FOR PUPILS IN GRADES 1-3, 1972-73

Group		N	Pretest (CAT)	CGS	Adjusted
I.	Experimental	67	27.06	9.54	9.31
II.	Innovative	41	24.61	10.49	11.16
III.	Control	121	26.70	10.68	10.58

F = 0.6103, not significant at the 5 per cent level.

Table 4

MEAN PRETEST CAREER AWARENESS TEST (CAT), CAREER GUIDE SURVEY (CGS) AND ADJUSTED CRITERION SCORES FOR PUPILS IN GRADES 4 - 6, 1972-73

Group		N	Pretest (CAT)	CGS	Adjusted
I.	Experimental	112	21.43	11.87	12.20
II.	Innovative	86	23.53	11.05	10.74
III.	Control	197	22.66	8.56	8.51

F = 4.8863, significant at the 1 per cent level.

T - test indicates significant difference beyond the 5 per cent level between all pairs of groups.

The third year of the program, it was decided that a control group outside the participating schools should be chosen, since many of the non-participating students within a participating school had easy access to materials and advice of participating teachers and program resource persons. Also during the second program year, kits for specific careers had been developed by the Elementary Resource person and were being used frequently and with apparent enthusiasm by participating teachers. It was decided by the program director that the career kits might be a better vehicle for spreading career awareness at that level. Therefore, in the third year of

the program, the number and kind of career kits was increased to include as many career clusters as possible and evaluation of specific activities was related to those contained in the career kits rather than the curriculum guide. The Career Awareness Test was used again the third year to look at changes in participating students over a two year span.

6.2a I. Analysis of Career Kit Test Results by Grade Level

A. Kindergarten - 1st

The kindergarten experimental group (used kits) which used one kit, did significantly better ($p < .05$) than the control group (no kits used) for that grade. However, the size of the sample was small and differences were probably due to factors other than the use of a single kit.

No significant differences were observed for Grade 1 between the control and the experimental group, even when the treatment group used six kits.

B. 2nd and 3rd Grades

No significant differences occurred between the control group and the treatment group (using kits) for Grade 2 if the experimental classes used two or three kits. The control group (no kits, non-participants) did significantly better ($p < .05$) than participating groups which used one kit or less. Again, initial differences between groups may account for such results. For Grade 3, the differences are not significant between the control and experimental group.

C. 4th, 5th, and 6th Grades

There is a trend for scores to improve between Grades 4 and 5, both for the groups using kits and those which did not use them. Also the frequency of use of kits tended to increase from Grades 4 through 6. For example, in Grade 6 only, did more than one class use at least seven kits.

In Grade 4, the differences between the students using kits and those which did not use them were not significant. For Grade 5, groups using three to six kits did not do significantly better than the control group which used no kits. One class which reported using twelve kits scored significantly lower ($p < .05$) than the control group which neither participated in the program nor used any kits.

Grade 6 students who used from eight to ten kits scored significantly higher ($p < .01$) on the kit test than did either control subjects or students who used four or five kits (see Table I). The sample size for each of these three categories was relatively larger (greater than 70) and the differences could not be easily explained by initial class differences.

D. Summary:

The use of kits by participating students tended to increase across grade levels. Mean scores for such students on the same kit test increased from Grades 4 through 6. No reliable significant differences between nonparticipating, non-users of kits and participating, kit users occurred until Grade 6. Students at this level who used seven to twelve kits achieved significantly greater on the kit test than did either participants who used one to six kits or non-participating students who used no kits.

II. Analysis of Individual Kit Effectiveness

Since participating students using at least seven kits or more in Grade 6 achieved significantly higher scores ($p < .05$) on the Career Kit Test than did either participants who used one to six kits or non-participating subjects, the question becomes: Which kits were more effective in producing such differences? The following analysis attempts to answer this question for 6th grade students.

Table II shows a comparison of mean scores on questions relating to <u>each</u> kits for 6th grade students who used no kits (control) and participating students who used seven to twelve kits. Students who used the kits are further divided into those participants who used a <u>specific</u> kit (camera, horticulture, etc.) and those who did not.

For six of the twelve kits, camera, crime fighters, geology, food services, cosmetology and plumbers kit, the mean scores were significantly greater ($p < .05$) for participants using seven to twelve kits who had used that <u>specific</u> kit than for non-participants using no kits.

For one kit, the camera kit, the mean scores for participants who had used that specific kit was significantly higher ($p < .05$) than for either participants who had not used that specific kit or nonparticipants using no kits.

Four four kits, horticulture, food services, career reading, and health services, participating students using seven to twelve kits who did <u>not</u> use that specific kit, achieved mean scores significantly greater ($p < .05$) than non-participants not using the kits.

For one kit, the horticulture kit, participants who nad not used the specific kit achieved significantly higher scores ($p < .05$) than participating students who had used that specific kit. On no kit subtest did non-participating students no using the kits do significantly better than participants, either users or non-users of the specific kits.

<u>Summary</u>:

One-half of the kits used by participants in the 6th grade were effective in producing significantly higher achievement scores on the Career Kit test than scores for the non-participating students who did not use the kits. Also, the control group did not show significantly greater achievement on any of the kits when compared to participants who had used the specific kits as well as those who had not used the particular kit.

6.3 and
6.4 The materials and activities suggested within the career kits may or may not generate side effects such as a willingness to cooperate and participate on the part of students within the program. A questionnaire (see Appendix, A-1) was given to teachers who had employed the suggested materials and activities in their teaching, either through the use of the Curriculum Guide (second year of program) or the Career Kits (third year of program). During the second year, seven of nine teachers who had used the Curriculum Guide extensively, responded to the questionnaire. The third year, twenty-nine teachers in the expanded seven elementary schools replied to the query.

The pattern of responses by teachers was almost identical for both the second and third year of the program. In both instances, the participating teachers stated that elementary students cooperated in career projects and activities "most of the time" on a five-point scale ranging from "all the time" to "never". A similar evaluation was given by teachers to the students' participation in "hands-on" kit and Career Activities. The most frequent remarks made by teachers during both years generalized about the theme that students enjoyed the activities and career kits and were highly motivated toward experiencing new objects and ideas.

6.5 Logs of the elementary resource person (1973-74) showed that community resources were utilized to the extent that seven separate field trips were conducted with the school children. In addition, forty-nine meetings were held with project staff and visitors from the community.

7.1 During the course of the 1973-74 school year, logs indicate the junior high school resource person brought community resource speakers into the classroom on five occasions. In addition, he arranged for eight field trips during the school year, and coordinated the activities of a number of resource speakers in planning for the Career Day program (see 2.3, above, for further discussion of Career Day).

7.2 Information obtained from the logs of the junior high resource person indicates that he met with teachers and counselors twelve times during the 1973-74 school year. One result of these meetings was the development, at teacher request, of ten videotapes and at least a half dozen mini-courses for use by teachers as part of their classroom instruction. (See also results on objective 2.2, above)

8.1 The counselor at Spring Junior High School conducted group counseling sessions for twelve students who were deemed to have high dropout potential. Frank discussions and participant-planned field trips were thought by the counselor to have enhanced the probability of these students' completing high school.

Field trips made by the group included visits to Tucson High School, the Tucson Art Center, Fire Station Number 10, Davis-Monthan Air Force Base, and Pima Community College.

9.1a Both a World of Construction test and a World of Manufacturing test was developed by the internal evaluator and the teachers of the courses at the two participating junior high schools during the third year of the Program. Results of the tests are reported by the external evaluator (see VII. Summary of Evaluation Questions).

9.2 Approximately three hundred students from two high schools responded to a questionnaire on the usefulness of the World of Construction and World of Manufacturing Programs. More than 95% of the participants indicated that both programs were as interesting as "other school work" or more so. Approximately three out of four participating students stated that such Programs helped them obtain a better idea of what they would like to do for a living. In general, the World of Work program was well received by participating junior high students in both the second and third year of the Program.

10.1 More than one hundred students in the World of Construction and World of Manufacturing classes at Spring Junior High School were biven a tour of the Tucson High School welding

shop, and permitted to participate on a limited scale in shop activities.

11.1 The junior high school resource person drew on the resources of various individuals and agencies in the community during the 1973-74, in that his logs for this time period indicat forty-one contacts made for the purpose of securing materials or resource speakers for classroom teachers, or of arranging and carrying out field trips.

12.1 Twenty-five "crisis-prone" students were placed in jobs during the 1973-74 year. Supervisors evaluated performance of these young people on fifteen worker areas (interest, attendance, following directions, getting along with other workers, etc.) Performance was rated from one (high) to five (low) on each of these characteristics, and the scores were then averaged for an over-all rating. As a group, workers averaged 1.98 on the ratings. The teacher-counselor coordinator has noted that this is a full point better than the grade-point average (also on a five-point scale) in classes of the same young people.

Table 5 provides follow-up information on students who participated in the project in each of the three years.

12.2 In 1972-73, twenty-three students participated in two sections of the Student Individual Career Source (SICS-Pack) course. A test was given to them at the end of their studies, at which time their mean score was 35.4 (out of fifty items), standard deviation was 5.5.

In 1973-74, ten students started the early-morning SICS-Packs Program, and others joined during the year. All of them were placed successfully in jobs. It was not required for students to stay with the SICS-Packs morning program throughout the year; in fact, students were encouraged to work with the materials at their own pace, and to leave when they felt they had mastered the course content. Four students stayed in for the entire year, however, and showed a pre - post test gain on the SICS-Packs test of four points on the average (Pretest mean: 36; Posttest mean: 39; N = 4.).

12.3 The extended day program operated two course, Nurses Aide Training and Auto Mechanics during the second year of the program. During the third year, the participating high school operated two different courses, office skills and welding. The instructors in each program kept a record of skills mastered by the participants.

Eleven students registered in the Arc Welding Program. Four of the participants who began the course did not complete it. Of those completing the course, two need much more time to reach "entry level" for welding jobs. Four other trainees require more time to reach "entry level" for some welding jobs but might be ready for a position requiring limited welding skills (see Appendix A-2). One student now has "entry level skills" in welding and has been employed cutting up car bodies at approximately $4.00 per hour.

In the Office Skills Program, participants entered the course throughout the year and learned office skills which would either 1) get them related jobs or 2) up grade their skills in a current position. The average number of office skills obtained by fifteen participants was between twelve and thirteen (see Appendix A-3). All students learned keyboard fingering and fourteen out of fifteen were able to type at least thirty to forty words per minute with a minimum number of errors. In addition, other office skills such as typing letter forms and using the phone properly were acquired by at least four out of five of the trainees.

13.1 Twenty-six freshmen English classes participated in the regular career orientation program, or 825 pupils in all. Each class was involved for three weeks: the first week was taught by the teacher and the second and third, one-half of the students at a time, by the resource person. The purpose of orientation was to make students aware of different ways of looking at careers and the careers available to them when they finish school. In addition, twenty-four other upper-level classes participated in short career orientation sessions.

13.2 The Career Awareness Test was revised four times during the 1973-74 school year. The first revision was in response to a change in content emphasis in the career mini-course developed by the Career Information Center director. Later revision was made to deal with what appeared to be a low ceiling on the test: entry scores were quite high, and there was little room for improvement of scores on the post-test. This remained a problem even in the latest revision of the test, although it was learned toward the end of the school year that part of the difficulty was due to a misunderstanding of the purpose of the pretest. It was intended that the pretest be given by the classroom teacher before career instruction had begun; however, many of the teachers were administering the test after some career instruction was given and after some test items were specifically explained and answered.

This misuse of the pretest coupled with large within group variance account in part for the nonsignificance of pre - post gains on the final version of the Career Awareness Test (N = 177; average gain of approximately 3 raw score points out of a possible 22; 7 = .876, M.S.),

On the second part of the test, students were asked for seven bits of information about each of two career choices. At the posttest, they were asked to retain the first of the two careers they had chosen on the pretest, but were free to change their second choice. The students who followed these instructions (N = 138) showed a nonsignificant gain of 1.5 raw score

points (out of seven) from pretest to post on the career listed as their first choice. Those who retained the same second career choice (N - 57) also made a raw score gain, in this case of 1.7 points (r.s.) Students who changed second career choice also increased career knowledge, so that their mean score for their new career choice was 5.37 on a scale of 7.

Qualitative information was also gleaned from responses to Part II of the test, on the distribution of career choices in the different career areas, and in certain specific types of jobs. For instance it was learned that 42% of students completing Part II of the post-test (N = 174) chose two jobs which were in different career areas. (The areas were professional, service, industrial, and clerical.) Another 42.5% chose both jobs in the professional area. Very few (less than 2%) chose two jobs in the clerical area; somewhat more in service (4.5%), and 9% chose both jobs in the industrial field.

Frequently--chosen occupation areas included the growing medical field (10%) and the already crowded area of teaching (12%). Next highest "in demand" were secretarial-clerical (7%) and construction (8%) jobs. Surprisingly, the growing field of computer-related occupations drew only one response, as did the field of mining (although the latter is a highly visable potential employer in Arizona.

13.3 The director of the career information resource center, arranged for sixty-five field trips during the year, to see careers being practiced. With an average of about seventeen students per trip, 1,105 students went on field trips. The Desert Museum, an aircraft factory, computer centers, television stations, and newspaper offices were among the places visited in field trips.

Inservices were held with six teachers to help them incorporate career education topics in their classes.

The distribution of films, which were scheduled from Modern Talking Pictures Service and rented

from Great Plains Television Library, gave over 1,500 students an opportunity to see careers on screen.

Twelve luncheon career speakers addressed groups of about fifteen students each. These speakers talked to students about careers in their own fields of law enforcement, airlines work, modeling, law, nursing, water pollution control, veterinary medicine, construction (also the apprenticeship programs), social work, detective work, professional sports, and accounting. Speakers were also arranged, at teachers requests, to address classes on the subject of careers in the army, nutrition, newspapers, and science, and on the social security system. On the whole, the Tucson community was quite receptive to requests for guest speakers. Individual counseling reached about two hundred students during the 1973-74 year.

Other accomplishments of the recource center director included: establishment of a summer youth program, which has helped 350 students get summer jobs; establishment of a Youth Conservation Corps summer employment program; arrangement for a guest speaker from the telephone company to talk to all freshmen classes; setting up of practice interviews (role playing); and opening the career information center as an accessible learning and relaxation spot for students.

15.1 Analysis of personnel logs of the teacher-counselor coordinator for 1973-74 shows that he had ten contacts with Arizona State Services and other community agencies. In addition, he had eighty-nine meetings with employers and potential employers of students in the program.

Contacts with seventy-five different firms and employers in the two school years, 1972-74, have resulted in placement on jobs of approximately one hundred students. Some of the firms and organizations contacted include the Bureau of Apprenticeship Training, the City of Tucson Personnel Department, Davis Monthan Air Force Base, Mountain Bell Telephone Company, the Southern Airzona District Council of Carpenters, Tucson Gas and Electric Company, the Tucson Police Department, The United States Army Recruiting Service, and the U. S. Department of Labor.

The project also worked cooperatively with the Neighborhood Youth Corps, and such in-school projects as COE and DECA.

15.2 Dropouts were referred to the extended-day program by the Neighborhood Youth Corps. In 1972-73, enrollments were as follows: Nurses Aide Program - ninteen participants; Auto Mechanics and Welding - eighteen participants. The 1973-74 enrollments were: office skills - fifteen participants and Welding - nine participants.

16.1 This objective is discussed under objective 12.3.

17.1 Dropouts were referred to the extended-day program by the Neighborhood Youth Corps. Inc 1972-73, enrollments were as follows: Nurses Aide Program - ninteen participants; Auto Mechanics and Welding - Eighteen participants. The 1973-74 enrollments were: Office Skills - fifteen participants and Welding - nine participants.

17.2 Although none of the students in the extended day program re-entered the standard public school day program, many of them worked toward or completed their GED. The numbers of students successfully completing their high school equivalency tests were as follows: During the 1972-73 program, eight of those in the nurses aide program passed their GED test; eleven of those in the welding program did so. Complete figures are not available for 1973-74 participants.

CONCLUSIONS AND RECOMMENDATIONS:

At the elementary level, the greatest cognitive growth in career awareness has been at the 4-6 grade level. In particular, use of several (seven or more) kits in the course of a year results in greatest gains. A mini-workshop developed for teachers interested in the photography kit appears to have significantly enhanced its cognitive value. At all elementary levels, the motivational value of the career kits was perceived as high, with children's participation and cooperation reported as good to excellent.

Two recommendations are made for the elementary level: 1) Provide duplicate kits in adequate numbers, so that each teacher will have ample opportunity to use at least seven or more career kits in the course of the school year; 2) Offer mini-workshops to teachers in conjunction with the kits, to familiarize teachers with the many possible career-related uses of kits.

The State Department of Education recently gave the project $5,000.00 to develop additional copies of the career kits, to permit wider dissemination. The career kit guidelines, including main ideas and suggested activities, will be distributed wi h the kits.

One difficulty encountered throughout the project was in the effort to match outside control groups to the project participants. If this is to be done in future projects, matching should be on more than one parameter. For example, students matched according to socio-economic status may be found to be systematically higher in reading skills, or vice versa. One further control problem particular to this project, was that the control group was later found to be actively participating in a county-originated career education project. How much and what kind of treatment the control group received in this project is not known.

In the junior high program, students participating in the World of Work made cognitive gains in both the World of Construction and World of Manufacturing course. The affective value of project activities (courses, videotapes, and career day program) in increasing interest and motivation was clearly seen. Teachers reported fewer discipline problems in the classroom, and students saw a strong relationship between their coursework and tasks at home and future job options.

Recommendations at the junior high level are: 1) Continue to offer career days in the junior high schools, to give all students a chance to see, hear, and even talk with men and women in a wide range of careers. 2) Continue and expand on the videotape interviewing of men and women on-the-job in a wide range of career areas. These tapes could be incorporated into the curriculum in many subject areas, to enhance learning and increase motivation. They might also provide a relatively inexpensive alternative to field trips which are sometime time-consuming and difficult to arrange.

The high school project proved successful in a number of areas. Through guided use of the career information center, all freshmen received exposure to multiple career options. While content assessment of the freshman course did not reveal great changes in general career awareness, it did indicate a rethinking of specific career goals by participating students.

Combined work -- counseling experiences were rated high by both the counselor and the employers. Potential dropouts in the "SICS-Pack" class were successfully placed in part-time jobs, with generally high employer satisfaction in their performance.

The extended day program available to school dropouts offered training in office skills, nurses aides, auto mechanics and arc welding. Most of the trainees who stayed in the program acquired specific skills in the courses which qualified them for up graded jobs or entry level into new positions. Some trainees did not obtain enough skills to enter a vocation in the opinion of the instructor. It is strongly recommended that additional money be made available to complete the training for such students, and for a similar skill building program to be maintained by the local school system.

At the high school level it is also recommended that the career information center be maintained. It is understood that the high school will continue to maintain this valuable information source, under the supervision of a counselor

It is satisfying to know that a number of aspects of the project will be continued by the local school district after this project is completed. It is hoped however, that developed materials will not be spread so thin throughout the district that possible cognitive gains will be thereby lost.

APPENDIX A

Advisory Board Personnel

1973-74
ADVISORY COMMITTEE FOR MODEL CITIES
EXEMPLARY VOCATIONAL EDUCATION PROGRAM

NAME and TITLE	BUSINESS ADDRESS	BUSINESS PHONE
Maurice Cuptill, Chairman Coordinator, Industrial Education	P. O. Box 4040 Tucson, Arizona 85717	791-6239
Louis J. Bazzetta, Director Occupational Education	P. O. Box 4040 Tucson, Arizona 85717	791-6225
Allan Hawthorne, Deputy Superintendent	P. O. Box 4040 Tucson, Arizona 85717	791-6113
George Hunt, Administrative Assistant for Education Programs	P. O. Box 4040 Tucson, Arizona 85717	791-6770
Russell Jensen, Director Federal Programs	P. O. Box 4040 Tucson, Arizona 85717	791-6187/6129
Cressworth Lander, Director Model Cities	P. O. Box 5547 Tucson, Arizona 85703	791-4116
Charles Macon, Voc. Coord. for Vovational Education for Pima and Santa Cruz Counties	Pima College 2202 West Anklam Road Tucson, Arizona 85705	884-6601
Richard Martinez, Principal Davis Elementary School	500 West St. Mary's Road Tucson, Arizona 85705	791-6588
John T. Michel, Supervisor Exemplary Program (non-voting)	P. O. Box 4040 Tucson, Arizona 85717	791-5211
Robert Moore, Principal Spring Junior High School	300 West Second Street Tucson, Arizona 85705	791-6681
W. E. Naumann, President Sundt Construction Company	440 South Park Avenue Tucson, Arizona 85719	623-7531
Harold Olsen, Local Representative Bureau of Apprenticeship & Training United States Department of Labor	130 South Scott Tucson, Arizona 85701	791-6267
Sam Polito, Education Specialist Model Cities Programs	P. O. Box 4040 Tucson, Arizona 85717	791-6187/6129
Lee Starr, Principal Tucson High School	400 North Second Avenue Tucson, Arizona 85705	791-6711
Arthur Villaescusa, Civilian Personnel	Davis-Monthan Air Force Base Tucson, Arizona 85707	793-3270
Frederica Wilder, Assistant Superintendent for Elementary Education	P. O. Box 4040 Tucson, Arizona 85717	791-6212

APPENDIX B

Elementary Forms and Material

K - 6

OCHOA NEWS

March 1974 OCHOA ELEMENTARY SCHOOL Tucson, Arizona

Posing with quizboards they made in a Room 14 committee are Quiz Kids (left to right) Mary Tautimer, Johnny Salcido, Donna Francisco, Toni Cordova, Henry Rodriguez, and Benny Lewandowski.

"QUIZ KIDS" LEARN ELECTRICITY

Room 14 is learning about electricity and having fun doing it. First, we had to read a book about electricity. We then tried out an experiment with a dry cell, a long strip of wire, and a screw. The screw worked like a magnet.

Each committee made a big quizboard that has questions and answers on it like this: 9)54. [The answer is 6.] If you get the right answer, a bulb turns on.

We had to be very careful not to get a shock. But it would only have tickled just a little.

[Cruz Figueroa]
[Alfred Lopez]
[Diana Martinez]
[Manny Hill]

Room 14 Shown In Careers Book

Room 14 was lucky enough to be pictured in a Career Education book.

One committee went to the Double L Restaurant for pictures, and the other one was pictured during "committee time" here.

The name of the book is Designing the Future.

[Toni Cordova]

Follow-Through Parents Begin Sew Committee

Mrs. Llanes announced recently that Parents of Follow-Through are going to begin a sewing committee.

She said that they will make clothes for their kids. She also said that they will have a fashion show sometime in April.

We hope that the parents of Follow-Through will be able to model for all the kids at Ochoa School.

Good luck--and don't pin yourselves!

[Toni Cordova]
[John Cotter]

Warsaw Priest Visits Ochoa

Priest Jan Marjan is a Polish and French priest. He is from Warsaw, Poland.

He came all the way from Warsaw to Tucson to visit his sister, whom he hadn't seen for a long, long time. He is traveling to different countries to see the different ways children are educated.

"Schools are not much different here than they are in Warsaw," he told us, "except that in Warsaw children go to school six days a week for six hours every day."

According to Priest Marjan, the children in Warsaw used to walk many, many miles to get to school, but now they have buses.

After he leaves Tucson, (CONTINUED ON PAGE TWO.)

MODEL CITIES EXEMPLARY VOCATIONAL EDUCATION PROJECT

Staff Log

1973-74

Name: Paul Whalik

Date	Activity	Follow-Up (Optional)
April 1	Visit four elementary schools' staff.	
2	Visit three elementary schools' staff.	
3	Preparation for Career Day Conference in Phoenix.	
4	Conference for Career Day.	
5	Arizona Education Association Convention, Phoenix.	
8	Purchasing components for Music Kit.	
9	Inventory Kits.	
10	Inventory Kits.	
11	Inventory Kits.	
12	General Office Work.	
15	General Office Work.	
16	Research of new kits and sources.	
17	Research of new kits and sources.	
18	Research of new kits and sources.	
19	Personal Leave Day	
22	Research for new kits.	

MODEL CITIES EXEMPLARY VOCATIONAL EDUCATION PROJECT

Staff Log

1973-74

Name: Paul Mihalik

Date	Activity	Follow-Up (Optional)
April 23	Research for new kits.	
24	Career Fair - Career Education Booth demonstration with kits.	
25	Career Fair - Career Education Booth demonstration with kits.	
26	Preparing post-test distribution.	
29	Preparing post-test distribution.	
30	Inservice for teachers to conduct Career Education Post-test and Career-kit main idea tests.	

MODEL CITIES EXEMPLARY VOCATIONAL EDUCATION PROJECT

Staff Log

1973-74

Name: Paul Mihalik

Date	Activity	Follow-Up (Optional)
May 1	Inservice for teachers to conduct Career Education Post-test and Career-kit main idea tests.	
2	Teachers testing - Stand by for assisting.	
3	Teachers testing - Stand by for assisting.	
6	Pick-up post-tests and Career kit tests from seven elementary Schools	
7	Grading elementary Post and career kit tests.	
8	Grading elementary Post and career kit tests.	
9	Inventory Kits.	
10	Inventory Kits.	
13	Inventory Kits.	
14	Inventory Kits.	
15	Inventory Kits.	
16	Inventory Kits.	
17	Inventory Kits for close-out.	
20	Itemize list of equipment	
21	Itemize list of equipment	
22	Itemize list of equipment	

MODEL CITIES EXEMPLARY VOCATIONAL EDUCATION PROJECT

Staff Log

1973-74

Name: Paul Mihalik

Date	Activity	Follow-Up (Optional)
May 23	Pick up remnants of kits from teachers.	
24	Pick up remnants of kits from teachers.	
27	Prepare kit for trip to Phoenix.	
28	Statewide Career Education Project Conference-Phoenix.	
29	Statewide Career Education Project Conference-Phoenix.	
30	Statewide Career Education Project Conference-Phoenix.	
31	Preparation and Purchase of new Kits.	

MODEL CITIES EXEMPLARY VOCATIONAL EDUCATION PROJECT

Staff Log

1973-74

Name: Paul Mihalik

Date	Activity	Follow-Up (Optional)
June 3	Preparation and Purchase of new kits.	
4	Preparation and purchase of new kits.	
5	Preparation and purchase of new kits.	
6	Preparation and Purchase of new kits.	
7	Preparation and purchase of new kits.	

APPENDIX C

Junior High Material

MODEL CITIES EXEMPLARY VOCATIONAL EDUCATION PROJECT

Staff Log

1973-74

Name: Richard Morganti

Date	Activity	Follow-Up (Optional)
Mar.1	Met with Melba Conway to discuss her desire to have three resource speakers come to her class.	
4	Had an Inservice with Alice Wolfson and A. Adler of Safford Junior High School to discuss three week unit for Language Arts.	
5	Worked in my office at Safford on the unit for Alice and Adler.	
6	Made calls for Language Arts people, general office work.	
7	Set up field trip for Ruth Rusk and met with Ralph Gilkerson to discuss drop-out program.	
8	Picked up adding machine and cash register from Spring and delivered them to various teachers.	
11	Spent day at Spring and discussed Career Education with faculty.	
12 13 14	Visitors from Champaign, Illinois, discussed aspects of project and took them to view Junior High Program.	
15	Discussed program with visitor from California and the IACP.	

MODEL CITIES EXEMPLARY VOCATIONAL EDUCATION PROJECT

Staff Log

1973-74

Name: Richard Morganti

Date	Activity	Follow-Up (Optional)
Mar.18	Met with Mr. Michel, Discussed mini-courses for Language Arts and ordered supplies.	
19	Met with Mr. Sheard about field trips to Tucson High set up for April 9th.	
21	General Office Work, Phone calls, etc.	
22	Met with Mr. Pelusi at Safford also talked with John Waite, Field trip to Pima County Fair.	
25	Prepared report for Project.	
27	Field trip to Judge Fenton's Court. Aproximately 60 students.	
28	Speaker at Safford, Kim Roberts, Attorney.	
29	Karen Zizmore from Public Defenders Office spoke in Mr. Adler's class. General office duties.	

MODEL CITIES EXEMPLARY VOCATIONAL EDUCATION PROJECT

Staff Log

1973-74

Name: Richard Morganti

Date	Activity
Apr.1	Set up field trip for Ruth Rusk, to visit artist. Met with Mike Pelusi, Principal.
2	Arranged field trip, and two speakers per week.
3	Met with Sandra Bacca, Counselor to discuss counseling procedures for dropouts.
5	Met with Mr. Jolivet (Counselor and Sandra Bacca, Counselor to discuss dates.
8	General Office duties.
9	To students of Mr. Sheard on a field trip to Tucson High School Welding Shops.
10	Set up field field trips for teachers.
16	Field trip for the dropouts. Delivered materials to the Shop Classes.
17	Helped Jack Ayres obtain supplies for one teacher.
18	Practical Presentation forPhoenix.
20	Met with John and Pual to discuss Career Fair.
22	Developed answer sheet for Post=test IACP.
24	Prepared for Phoenix Trip and display.
29	Worked on final report.
30	Met with Mr. Turner and unloaded materials from Phoenix - Also delivered tests to Tucson High, Safford Junior High and Spring Junior High Schools.

MODEL CITIES EXEMPLARY VOCATIONAL EDUCATION PROJECT

Staff Log

1973-74

Name: Richard Morganti

Date	Activity	Follow-Up (Optional)
May 1	Prepared Monthly Report	
2	Visited Ruth Rusk concerning fieldtrip to library.	
3	Prepared Purchase Order for supplies	
6	Meeting with Shop teachers and counselors.	
7	Picked up materials at various stores for shops and delivered.	
8	Worked on mini-course suggestion from Alice Wolfson.	
9	Went to visit Alice and Arnie's class to watch mock voting.	
10	Met with Ms. Lane from Spring Junior High School.	
13	General Office Work	
14	Worked on Final Report	
15	Cleaned office and distributed materials to teachers.	
16	Discussed Pre and Post-tests with shop teachers, Spring.	
20	Discussed Pre and Post-tests with shop teachers, Safford.	
21	Met with Mr. Gilkerson to discuss a possibility of continuing counseling for dropouts.	

MODEL CITIES EXEMPLARY VOCATIONAL EDUCATION PROJECT

Staff Log

1973-74

Name: Richard Morganti

Date	Activity	Follow-Up (Optional)
May 22	Meeting with Project Staff and two evaluators.	
23	Met with Counselor to discuss progress with dropouts.	
24	Wrote report with counselor concerning potential dropouts.	
27	Meeting with Mr. Michel and Paul Mihalik to prepare for Phoenix trip.	
28	Trip to Phoenix, display.	
29	Trip to Phoenix, display.	
31	Trip to Phoenix, display.	
June 3	Picked up and delivered Office Supplies.	
4	Met with Mr. Michel to discuss where office supplies go.	
5	Cleaning out office.	
6	General Office Work	
7	PROJECT END.	

APPENDIX D

High School Material

[illegible] OF OCCUPATIONAL, EDUCATIONAL PROGRAMS
TUCSON HIGH SCHOOL OFFICE
TUCSON, ARIZONA 85705

Page 1 of 2 pages.

Date: 30 April 1974

NAME	GRADE/YEAR	CAREER INTEREST	Job Station Placement	REMARKS
1. Arrington, L.	18/Sr	Elementary Education	Plans Office, MASDC, DMAFB	Accepted for enrollm't
2. Baker, Joseph	17/Sr	Heavy Equipment Operations (1)	Environmental Farms	Experience/income.
3. Benitez, Chris'	17/Sr	Dental Technology	Dental Tech. Trainee	Experience/income.
4. Caulkins, James	17/Jr	Undecided (2)	Desert Valley Office Supply	Working; not enrolled
5. Cechus, Robert	18/Jr	Undecided	County Welfare Dept (YSB)	Income
6. Coronado, Mary	16/Jr	Develop work skills	Dairy Queen	Income/Experience
7. Cota, Leticia	17/Sr	Develop Office Skills	Office Aide, DMAFB	U of A enrollment.
8. Davie, Rosslyn	17/Sr	Develop Office Skills	Dental Office Assistant	Develop skills.
9. Durham, Jim	17/Jr	Arizona Auto Enterprises	Mechanic trainee - transmissions	Develo job skills.
10. Fimbres, Victor	17/Sr	Business Administration	Randolph Park Zoo-maintenance	U of A enrollment.
11. Gilmore, Craig	17/Jr	Undecided (2)	Drive-in theater	Income.
12. Gallardo, A.	17/Sr	Develop Office Skills	Office Aide, DMAFB	Skill Development
13. Greenstreet, P.	17/Sr	Occupational Therapy	Dental Office Aide	U of A enrollment.
14. Huerocue, Chris	17/Sr	Develop Office Skills	Office Aide, USA Reserve Center	Skill developments
15. Lee, Alan	17/Sr	College entrance	Desert Valley Office Supply	Income
16. Lem, Angela	16/Jr	Undecided	Office Aide, DMAFB	Income/Experience
17. Lewis, Marilyn	17/Sr	Undecided	Library Aide, DMAFB	Class Attendance Prob
18. Kovacs, Mary	17/Sr	Performing Arts (Dance)	Methodist Child Care Center	Experience/Income.
19. Nada, Mary	18/Sr	Administrative Training, USAF	Office Aide, DMAFB	Experience/Income

EXEMPLARY VOCATIONAL EDUCATION PROGRAM
TUCSON WEST SCHOOL OFFICE
TUCSON, ARIZONA. 85705

Date: 30 April 1974

NAME	AGE/ YEAR	CAREER INTEREST	Job Station Placement	REMARKS
Ochoa, Richard	17/Jr	Teacher, Industrial Education(2)	Tucson Engine Rebuild Shop	Not enrolled in Prog
21. Padilla, L.	18/Sr	Machinist	Auto Machine & Supply Co.	Full time employm't.
22. Ramirez, Lisa	17/Sr	Nursing or Dental Technology.	Community Center	U of A enrollment.
23. Reyes, Manuela	18/Sr	Undecided	Packing and Crating, DMAFB	Income/Experience.
24. Saufley, Jeff	18/Sr	Welding (or journalism)	Non Destructive Test, DMAFB	Income/Experience.
25. Smith, Sherri	17/Sr	Medical or Health careers	Office Aide, City of Tucson	Income/Experience.
26. Wesner, Mark	17/Sr	Welding technology	Non Destructive Test, DMAFB	Income/Experience.
27. Williams, V.	17/St	Undecided	Career Information Center	Personal Problems.
28. White, Moira	17/Sr	Special Education	Phoebe's Pie Shop	Income.

R E C A P I T U L A T I O N

Notes:
(1) Baker, Joe: Change of career objective to apprenticeship, Operating Engineers.
(2) Caulkins)
Gilmore): Placed on job training stations under supervision; not enrolled
Ochoa) in Exemp. Voc Ed because of school schedule conflicts.

Losses:
Ortiz, Norma: Completed graduation requirements at end of 3rd quarter.
Wescott, Stephen: Same as above.

EXEMPLARY VOCATIONAL EDUCATION PROGRAM
TUCSON HIGH SCHOOL OFFICE
TUCSON, ARIZONA 85705

Date: 31 May 1974

NAME	AGE/ YEAR	CAREER INTEREST	Job Station Placement	REMARKS
1. Andrews, B.(1)	18/Jr	Photography	Woolco Stores Camera Dept.	Not enrolled in Prog.
2. Arrington, L.	19/Sr	Elementary Education	Plans Office, TASDC, DMAFB	Enrolled U of A.
3. Baker, Joseph	17/Sr	Heavy Equipment operations	Environmental Farms	Full time employm't.
4. Caulkins, James	17/Jr	Undecided	Desert Valley Office Supply	Not enrolled in Prog.
5. Cerhur, Robert	18/Jr	Undecided	County Welfare Dept. (YSB)	Income.
6. Cota, Leticia	17/Sr	Develop Office skills	Office Aide, DMAFB	U of A enrollment.
7. Davie, Rosalyn	17/Sr	Develop Office Skills	Office aide, family business	Develop skills.
8. Durham, Jim	17/Jr	Airzona Transmission Co.	Mechanic trainee - transmissio	Develop job skills.
9. Figueroa, Victor	17/Sr	Business Administration	Randolph Park ZOO-Maintenance	U of A enrollment.
10. Gilmore, Craig(1)	17/Jr	Undecided	Drive-in Theater	Income.
11. Gallardo, Adela	17/Sr	Develop Office Skills	El Rio Health Center	Change of jobs.
12. Greenstreet, P	17/Sr	Occupational Therapy	Dental Office Aide	U of A enrollment
13. Hueraque, Chris	17/Sr	Develop Office Skills	US Army Reserve Center	Skill Development.
14. Lee, Alan	17/Sr	Business Administratio	Desert Valley Office Supply	Income.
15. Lem, Angela	18/Jr	Undecided	Office Aide, DMAFB	Income/experience.
16. Lewis, Marilyn	17/Sr	Undecided	Library Aide, DMAFB	Class/Job attendance.
17. Moreno, Mary	17/Sr	Child Development	Methodist Child Care Center	Pima College enrollm'
18. Mota, Mary	18/Sr	Administrative Training, US&E	Office Aide, DMAFB	Service enlistment.
19. Ochoa, Richard(1)	17/Jr	Teacher, Industrial Education	Tucson Engine Rebuild Shop	Not enrolled in Prog.

20.	Ortiz, Richard(1)	17/Jr	Welding Techonogy	Industrial Service, Inc.	Not enrolled in Prog.
21.	Newbrey, Mary(1)	16/Jr	Horticulture	Environmental Farms	Not enrolled in Prog.
22.	Padilla, David	18/Sr	Auto Machinist	Auto Mec. and Supply	Full time employment.
23.	Ramirez, Lisa	17/Sr	Nursing or Dental Tech.	Community Center	U of A enfollment.
24.	Reyes, M.	18/Sr	Undecided	Packing Shop, D.M.A.F.B	Income/Experience.
25.	Soufley, Jeff	18/Sr	Journalism	NCT Shop, D.M.A.F.B	U of A enrollment.
26.	Smith, Sherri	17/Sr	Health or medical careers	Office Aide, City of Tuc.	U of A enrollment.
27.	Wesner, Mark(2)	17/Sr	Welding Techonology	Welding Shop, D.M.A.F.B	Income/Experience.
28.	Williams, V.	18/Sr	Undecided	Career Info Center	Personal problems.
29.	White, Moira	17/Sr	Special Educatio	Phoebe's Pie Shop	Income

R E C A P I T U L A T I O N

Notes:

(1) Students placed on job training stations under supervision, but not enrolled in Exemplary Program because of school schedule conflicts.

(2) Wesner, Mark: Won first place award in Arc Welding at state level Vocational Industrial Clubs of America Competitions. Will compete in National level competition at San Antonio, Texas, in June. Funds raised by donations and welding shop job projects.

Losses: Coronodo, Mary. Dropped from school because of poor class attendance. Retained job at Dairy Queen for income.

29 March 1974

763	00	Baker, Joseph O.	Myers	1	6	176		X
		Cordova, Norma T.		2	4			X
		Gallardo, Adela		2	4			X
		Huaraque, Christine R.		2	4			X
		Kovacs, Mary T.		2	6			X
		Lewis, Marilyn		2	2			X
		Ramirez, Lisa T		2	4			X
		Smith, Sherri R		2	8			X
		White, Moira T.		2	6			X
		Williams, Virginia		2	2			X
763	03	Cota, Leticia	Myers	2	4			X
		Williams, Virginia (2)*		2	2			X
763	04	Benitez, Christine	Myers	2	4			X
763	05	Arrington, Linda R.	Myers	2	2			X
		Baker, Joseph O. (2)		1	6			X
		Benitez, Christine (2)		2	4			X
		Cordova, Norma T.		2	4			X
		Durham, James D.		1	6			X
		Fimbres, Victor F.		1	4			X
		Gallardo, Adela T.		2	4			X
		Greenstreet, Paula L		2	6			X
		Huarague, Christine R. (2)		2	4			X
		Kovacs, Mary T		2	6			X
		Lee, Alan		1	3			X
		Lem, Angela R		2	4			X
		Lewis, Marilyn (2)		2	2			X
		Lopez, Augustine G. (see note 1)		1	4			X
		Mada, Maria		2	4			X
		Padilla, David C.		1	4			X
		Ramirez, Lisa T. (2)		2	4			X
		Reyes, Manuela		2	4			X
		Saufley, Jeff (Floyd)		1	6			X
		Smith, Sherri R. (2)		2	2			X
		Wescott, Stephen F. (see note 3)		1	6			X

763	05	Lesner, Mark A.	Myers	1	6	176	X
763	06	Cephus, Robert L.	Myers	1	2	176	X
		Davie, Rosalyn M.		2	6		X
		Lem, Angela (2)		2	4		X

RECAPITULATION

Sex:

Male	11
Female	19
	(30)

Ethnic		Percent
1	0	0
2	8	21.05%
3	1	2.63%
4	18	47.37%
6	11	28.95%
	(30)	100.00%

Notes:
Note 1: Lopez, Augustine. Discharged but not dropped from class roster.
Note 2: Ortiz, Richard. Enrolled in program but not yet added to class roster.
Note 3: Hescott, Stephen. Completed graduation requirements at the end of 3rd quarter but will continue working until June.
* Denotes students enrolled in two class periods.

Data Source: Attendance accounting Section List.

R.A. Myers
Employment coordinator.

D - 6

EXEMPLARY VOCATIONAL EDUCATION PROGRAM
TUCSON HIGH SCHOOL OFFICE
TUCSON, ARIZONA 85705

Job Placement Roster — Date: 29 March 1974

NAME	AGE/ YEAR	CAREER INTEREST	JOB STATION PLACEMENT	REMARKS
1. Arrington, L.	19/Sr	Elementary Education	Plans Office, MASCD, DMAFB	Develop job skills.
2. Baker, Joseph	17/Sr	Heavy Equipment Operation	Environmental Farms, Inc.	Change career goals.
3. Benitez, Chris'	17/Sr	Dental Technology	Dental Tech. Trainee	Training/Income.
4. Cechus, Robert	18/Sr	Undecided	County Welfare Dept. (YSB*	Income
5. Cervova, K.	18/Sr	Develop office skills	Office Aide, MASDC, DMAFB	Skills/income.
6. Coronodo, K.	16/Jr	Undecided	Diary Queen	Income/skills.
7. Cota, Leticia	17/Sr	Develop salabe skills, office	Office Aide, MASDC, DMAFB	U of A enrollment.
8. Davis, R.	17/Sr	Undecided	Dental Office Assistant	Develop skill/income.
9. Durham, J.	17/Sr	Arizona Auto Enterprises	Mechanic trainee, transmissions	Develop job skills.
10. Fimbres, Victor	17/Sr	Business administration	Randolph Park Zoo, Maint.	Experience/income.
11. Gallardo, Adela	17/Sr	Office Administration	Office Aide, DMAFB	Skill Development.
12. Greenstreet, P.	17/Sr	Occupational Therapy	Dental Office Aide.	Experience/Income.
13. Huaroque, C.	17/Sr	Office skills	Office Aide, US Army Reserve.	Skill Development.
14. Lee, Alan	17/Sr	College Entrance, Pre-law.	Desert Valley Office Supply	Income for college.
15. Lem, Angela	16/Jr	Undecided	Office Aide, DMAFB	Develop job skills.
16. Lewis, Marilyn	17/Sr	Undecided	Library Aide, DMAFB	Class attend. Problem
17. Kovacs, Mary	17/Sr	Performing Arts, (Dance*	Methodist Child Care Center.	Experience/income.
18. Mada, Maria	18/Sr	Office Administration	Office Aide, MASCD, DMAFB	Experience/Income.
19. Ochoa, R.	17/Jr	Vocational education	Tucson Engine Rebuild Co.	Shop experience.

EXEMPLARY VOCATIONAL EDUCATION PROGRAM
TUCSON HIGH SCHOOL OFFICE
TUCSON, ARIZONA 85705

Job Placement Roster

21 March 1974

NAME	AGE/ YEAR	CAREER INTEREST	Job Station Placement	REMARKS
20. Ortiz, N.	17/Sr	Social Work or Probation Officer	City of Tucson Police Dept.	Experience/Income.
21. Padilla, D.	18/Sr	Machinist	Auto Machine and Supply Co.	Improved attendance.
22. Ramirez, Lisa	17/Sr	Nursing or Dental Technology	Dental Tech. Trainee.	Improved attitude.
23. Reyes, Manuela	18/Sr	Post Secondary employment	Packaging trainee, DMAFB	Income/Skill developmt
24. Saufley, Jeff	17/Sr	Welding (or journalism)	Non-Destructive Test, DMAFB	Experience/Income.
25. Smith, Sherri	17/Sr	Medical or health careers	Office Aide, City of Tucson.	Experience/Income.
26. Villa, R.	16/Soph	Auto Mechanics	Sports Import Auto' Co.	Attendance problems.
27. Wesner, Mark	18/Sr	Welding	Non-Destructive Test, DMAFB	Pima CC enrollment.
28. Wescott, S.	17/Sr	Electrical Trades	Henry Electric Co.	Early graduation.
29. Williams, V.	17/Sr	Undecided	Career Information Center	Personal problems.
30. White, M.	17/Sr	Special Education	Employment Required	

RECAPITULATION

Job Losses since 28 Feb:
Fontes, Steve: Discharged for poor job attendance. Dropped out of school.
Lopez, Augustine: Discharged for poor job attendance. Still in school.

New Job Placements since 28 Feb:
Lam, Angela: Office Aide, DMAFB
Coronodo, Maria: Dairy Queen (Income job)
Ochoa, Richard: Tucson Engine Rebuild Co., Automotive Machinist.

EXEMPLARY VOCATIONAL EDUCATION PROGRAM
TUCSON HIGH SCHOOL OFFICE
TUCSON, ARIZONA 85705

Job Placement Roster — Date: 29 March 1974

NAME	AGE/ YEAR	CAREER INTEREST	JOB STATION PLACEMENT	REMARKS
1. Arrington, L.	19/Sr	Elementary Education	Plans Office, MASCD, DMAFB	Develop job skills.
2. Baker, Joseph	17/Sr	Heavy Equipment Operation	Environmental Farms, Inc.	Change career goals.
3. Benitez, Chris'	17/Sr	Dental Technology	Dental Tech. Trainee	Training/Income.
4. Cephus, Robert	18/Sr	Undecided	County Welfare Dept. (YSB*	Income
5. Cordova, N.	18/Sr	Develop office skills	Office Aide, MASDC, DMAFB	Skills/income.
6. Coronodo, M.	16/Jr	Undecided	Diary Queen	Income/skills.
7. Cota, Leticia	17/Sr	Develop salabe skills, office	Office Aide, MASDC, DMAFB	U of A enrollment.
8. Davie, R.	17/Sr	Undecided	Dental Office Assistant	Develop skill/income.
9. Durham, J.	17/Sr	Arizona Auto Enterprises	Mechanic trainee, transmissions	Develop job skills.
10. Fimbres, Victor	17/Sr	Business administration	Randolph Park Zoo, Maint.	Experience/income.
11. Gallardo, Adela	17/Sr	Office Administration	Office Aide, DMAFB	Skill Development.
12. Greenstreet, P.	17/Sr	Occupational Therapy	Dental Office Aide.	Experience/Income.
13. Huaraque, C.	17/Sr	Office skills	Office Aide, US Army Reserve.	Skill Development.
14. Lee, Alan	17/Sr	College Entrance, Pre-law.	Desert Valley Office Supply	Income for college.
15. Lem, Angela	16/Jr	Undecided	Office Aide, DMAFB	Develop job skills.
16. Lewis, Marilyn	17/Sr	Undecided	Library Aide, DMAFB	Class attend. Problem
17. Kovacs, Mary	17/Sr	Performing Arts, (Dance*	Methodist Child Care Center.	Experience/income.
18. Mada, Maria	18/Sr	Office Administration	Office Aide, MASCD, DMAFB	Experience/Income.
19. Ochoa, R.	17/Jr	Vocational education	Tucson Engine Rebuild Co.	Shop experience.

EXEMPLARY VOCATIONAL EDUCATION PROGRAM
TUCSON HIGH SCHOOL OFFICE
TUCSON, ARIZONA 85705

Job Placement Roster

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23. Reyes, Manuela	18/Sr	Post Secondary employment	Packaging trainee, DMAFB	Income/Skill developmt
24. Saufley, Jeff	17/Sr	Welding (or journalism)	Non-Destructive Test, DMAFB	Experience/Income.
25. Smith, Sherri	17/Sr	Medical or health careers	Office Aide, City of Tucson.	Experience/Income.
26. Villa, R.	16/Soph	Auto Mechanics	Sports Import Auto' Co.	Attendance problems.
27. Wesner, Mark	18/Sr	Welding	Non-Destructive Test, DMAFB	Pima CC enrollment.
28. Wescott, S.	17/Sr	Electrical Trades	Henry Electric Co.	Early graduation.
29. Williams, V.	17/Sr	Undecided	Career Information Center	Personal problems.
30. White, M.	17/Sr	Speckal Education	Employment Required	

R E C A P I T U L A T I O N

Job Losses since 28 Feb:
Fontes, Steve: Discharged for poor job attendance. Dropped out of school.
Lopez, Augustine: Discharged for poor job attendance. Still in school.

New Job Placements since 28 Feb:
Lem, Angela: Office Aide, DMAFB
Coronodo, Maria: Dairy Queen (Income job)
Ochoa, Richard: Tucson Engine Rebuild Co., Automotive Machinist.

POTENTIAL JOB STATIONS
FOR TCE PROGRAM

Employer	Job Experience	Related Class
Auto Machine and Supply	Automotive Machinist	Machine Shop Auto Shop Welding Shop
Arizona Automotive Enterprises	Transmission Mechanic	Machine Shop Auto Shop
Environmental Farms	Horticulture	Horticulture Chemistry
Desert Valley Office Supply (2 positions available)	Route Delivery Office Experience	Con' Math'. Auto Shop Typing Business Ed.
Henry Electric	Electrician Helper	Basic Electricity Math' Business courses
Dr. Sickler, DDS	Denta' Technician	Biology Chemistry Business Ed.
Dr. Schmitz, DDS (2 positions possible)	Orthodontics	Biology Chemistry Physical Science Business Ed.
Methodist Child Care Center	Child Care	Home Economics Business Ed.
Sparkle Cleaners	Plant Maintenance	Machine Shop Wood Shop Welding Shop Business Ed. Con. Math'.
City of Tucson (3 possible possitions)	Maintenance	Wood Shop Welding Machine Shop
	Police Dept.	Social Studies Business Ed
	Library	Social Studies Business Ed. Con. Math.
DMAFB (may have up to 19 Stations, based on economic need.)	Non Destructive Test Shop	Machine Shop Welding Physical Science

Director, Child Day Care Center
Catalina United Methodist Church
2700 East Speedway Blvd.
Tucson, Arizona
(Note: The last Director was fired and they are playing musical chairs with this position; I have no name at this time.)

Mary Kovacs

SCHOLARSHIPS AND AWARDS TO COLLEGES AND UNIVERSITIES

Dora Luz Valenzuela	UA
Loretta K. Newberry	UA
Linda Arrington	UA, NAU
Kermit E. Jones	UA
Rosemary M. Durago	UA
Regina A. Garcia	UA
Glen E. Harrison	UA
Alan Y. Lee, Jr.	UA
Margaret O'Hagin	UA
Evelyn Vidal	UA
Moira White	UA
Karen A. Todd	UA
Kam C. Lee	UA
Virgil B. Dixon	UA, Trinity U
Kay Jett	ASU, Elk's (city and state), International Assoc. Machinenists
	Betty Crocker State
Yat-Ming Chung	Capital U
Yat-Shing Chung	Capital U, Hanover College
Paula Greenstreet	Elk's Scholarship
Debbie Chan	UA

John - These students are EXEMPLARY PROGRAM PARTICIPANTS.

Bob Nancy for Hint Quarterly.

IF YOU HAVE RECEIVED SCHOLARSHIPS OR AWARDS, PLEASE LIST THEM WITH THE SECRETARY IN THE COUNSELORS' OFFICE.

MODEL CITIES EXEMPLARY VOCATIONAL EDUCATION PROJECT

Staff Log

1973-74

Name: _____

Date	Activity	Follow-Up (Optional)
April	[illegible]	
	[illegible] 40	[illegible] Schmidt
4/3	Field Trips	
	KMJQ 12	
	KHJK 11	
	[illegible] 13	
	[illegible]	
	[illegible] 4[illegible]	
4/4	[illegible] job interviews	
	in 3 classes 40	Schmidt
4/4	films	
	[illegible] 10	[illegible]
	[illegible]	
4/4	Showed film during	
	lunch- [illegible] 5	

MODEL CITIES EXEMPLARY VOCATIONAL EDUCATION PROJECT

Staff Log

1973-74

Name: _____

Date	Activity	Follow-Up (Optional)

MODEL CITIES EXEMPLARY VOCATIONAL EDUCATION PROJECT

Staff Log

1973-74

Name: G. William Turner

Date	Activity
Apr. 1	Taught three Saltzman classes, Mountain Bell work interviews in three classes.
2	Set up Federal testing of our freshmen students for today and tomorrow. Got all material for ½ of Post-test to evaluator.
3	Taught three classes of Saltzman, three field trips and graded papers
4	Taught three classes, previewed film , had more summer job interviews with City Program.
5	Went as delegate to Arizona Education Association Convention in Phoenix.
8	Taught three classes, met with Mrs. Wild to set up for Saltzman. Met with Mrs. Beel from Youth Conservation Corps. Talked with aid and scheduled classes and activities for remainder of school year with aide.
9	Set up fire cadet program interviews with Jim Davis of Fire Department. Met with Mr. Michel to plan Career Education Presentation for State Career Fair. Previewed Career Education films for EMC.
10	Field trips, two, taught two classes.
11	Went to Employment Commission office to explain and turn in final Youth Conservation forms for summer work. Organized all files and books and cleaned center.
16	Set up field trips, guest speakers, graded tests, worked on setting up Pictorial Inventory of Careers test.
17	Set up all career awareness material for rest of year Made final arrangements with Manpower and Fire Department for tomorrow's student fire cadet interviews. Met with science teacher to arrange field trips.

MODEL CITIES EXEMPLARY VOCATIONAL EDUCATION PROJECT

Staff Log

1973-74

Name: G. William Turner

Date	Activity
Apr. 18	Set up testing procedure with Los Angeles firm for three career testing classes in May. Met again with Mrs. Wild to begin Saltzman work. Talked with representative of Manpower and Jim Davis, fireman to coordinate tomorrow's interviews.
19.	Interviews for Fire Department A/M. Met with Superintendent discussed my program.
22	Had practice run with Mr. Bazzetta and Mr. Michels regarding Phoenix Trip. Gave pre-test to freshmen for Saltzman, four classes.
23 & 24	Spent both days, all day developing and recording T.V. film and sound track for Phoenix trip.
25 & 26	Got ready and went to Phoenix for State Dareer Fair.
29	Taught four Saltzman classes. Met with Chapperal Business School to help plan and organize Career Day. Met with Miss Hopper of Business Department to get approval to distribute material. Met with Miss Wild to go over material on Saltzman she used last wee.
30	Taught two classes, organized and confirmed organization of summer youth program employees for May 7th and 8th. Graded papers from Saltzman.

MODEL CITIES EXEMPLARY VOCATIONAL EDUCATION PROJECT

Staff Log

1973-74

Name: G. William Turner

Date	Activity
May 1	Taught two Saltzman classes, set up material for Mr. Hemourwitz to start Saltzman next week. Graded papers, wrote letter to Mountain Bell thanking them for their help this year.
2	Taught four classes, met with Mr. Michel to set up inventory, cleaned C. I. C., began inventory of Center.
3	Taught four classes of Saltzman, Set up appointment for student to apply for job, gave final grades for first ½ of Wild's Saltzman classes. Worked on Inventory.
6	Started four new Saltzman classes. Worked on Inventory. Administered pre-test to Mr. Hemorwitz's Freshmen.
8	Taught two Saltzman classes, finished inventory, graded papers.
9	Taught four Saltzman classes, met with guest speaker from Montgomery Wards. Graded papers.
10	Set up new classes to start Tuesday. Set up Pictorial Inventory of Career test to be given Tuesday. Taught four classes, graded papers and gave final grades.
14	Taught Saltzman class, taught two classes, started work on report.
15	Field trip to Waste Water Plant. Worked on report.
16	Finished report, taught class, set up studen : for summer work with University and city parks and recreation department.
17	Taught one class, wrote up staff log, met with English teacher to arrange class of Pictural Inventory of Careers and to spend time in the CIC.
20	Taught three classes, student counseling.
21	Administered PIC all day to three classes.

MODEL CITIES EXEMPLARY VOCATIONAL EDUCATION PROJECT

Staff Log

1973-74

Name: G. William Turner

Date	Activity
May 22	Met with Mr. Michel to go over report. Guest speaker, accountant, field trips to Computer Center.
23	Taught three classes.
24	Taught three classes.
27	Teaching two classes, helping to register students for school next year and meet with representatives of Pima County Career Development Project to discuss their use of the Center next year.
June 3	Cleaning up center and files.

MODEL CITIES EXEMPLARY VOCATIONAL EDUCATION PROJECT

Staff Log

1973-74

Name: R... Myers

Date	Activity	Follow-Up (Optional)
1 Mar	Mrs. Chapman, St Mary's Hospital set up career info tour.	Individual tours for Smith and Ramirez (health careers).
1 Mar	Fontes, Steve: Check job site problems, El Taco.	Manager dissatisfied; steve may be released for cause.
4 Mar	Cordova, Norma: Follow-up on problems with mother/home life.	Appears to have come to a understanding; less tense.
4 Mar	Baker, Joe: Discuss post sec. planning.	Joe has changed his mind; now looking into heavy equip. opn.
4 Mar	Kovacs, Mary: Continue post sec planning; still looking at dance.	Mary's interest may be unrealistic; teacher doubts dance talent.
5 Mar	Lopez, Augustine: Job site visit Sparkle Cleaners.	Poor job attendance; lack of interest; girl troubles.
5 Mar	Durham, Jim: Job site visit, Arizona Auto. Enterprises.	Good progress; continues work and training on transmissions.
6 Mar	Smith and Ramirez: Career tour, St. Mary's Hospital.	Comprehensive individualized tour for health careers.
7 Mar	Registration for summer youth job concluded; no problems.	Approximately 300 applicants screened in 4 days.
7 Mar	Sick leave.	
8 Mar	Mr. Dunn, Ashton Construction, re job stations.	Will assist with apprenticeships, but won't take part time students.
8 Mar	Ramirez, Lisa: Follow-up on visit to St Mary's Hospital.	Feels that visit was excellent orientation for career.
8 Mar	Gonzales, Earnest: Discuss excessive class absences.	About to be dropped from school and job unless he gets back to clas
8 Mar	Cota, S. Discuss excessive class absences; on Dean's list.	Will be dropped unless he gets back to class.
8 Mar	Ortiz, Ruben: Has been dropped from school for poor attendance.	Seeking job until he can re-enroll in class.
11 Mar	Mr. Condron, Coordinator, Operating Engineer Apprenticeship Program.	Coordinate appointment for Joe Baker.
11 Mar	Mr. McDonald, AZ Sch for Deaf and Blind: Coord' visit for white.	Individual visit to explore career in special education.
11 Mar	Wesner, Mark: Discuss post-secondary planning, welding.	Assist in making visit to Welding Course, Pima Com. Col.
12 Mar	Knauss, Dan: Coordinate visit to US Attorney's Office for Peterson.	Steve to observe lawyer and courtroom procedures.
11 Mar	Mr. Fleener and Jones, Illinoise.	Briefed Program visitors.

MODEL CITIES EXEMPLARY VOCATIONAL EDUCATION PROJECT

Staff Log

1973-74

Name: K.W. Myers

Date	Activity	Follow-Up (Optional)
12 Mar	Padilla, David: Follow-up on post secondary planning.	Plans to seek employment after graduation: Auto' mechinist.
12 Mar	Duarte, Debbie: Application for summer employment.	Junior--interested in participating in work-study next fall.
12 Mar	Baker, Joe: Info on Operating engineer Apprenticeship.	Provided info from Career Center on requirements and jobs.
13 Mar	Mr. Bleener and Jones, Illinois: Visted Job stationds, DMAFB.	Saw four varied job stations and discussed Exemp. Program.
14 Mar	Benitez, Christy: Coordinated vist to Dental Hygienist.	Will contact Mrs. Fuller, Dr.--Becker's Office.
14 Mar	Dr. Sickler: Follow-up on Davie job progress.	Studetn is making good progress; may work during summer months.
14 Mar	Dr. Schmitz: Info on problems w/ Lorrain Marquez.	Ex-student; applying for unemployment benefits; bad show.
15 Mar	Durham, Jim: Job site visit, AZ Auto Enterprises.	Follow-up on discussions with employer and shop instructor.
15 Mar	Padilla, David: Job site visit, Auto Machine and Supply.	Employer plans to hire David full-time after graduation.
15 Mar	Hedoy, Gerry: Graduated 1972 after 1 yr with Exemp. Voc Ed Program.	Completed Aircraft course at Cochise College; now employed full time.
15 Mar	Mrs. Vicki Fuller, Dental Hygienist arrange career visit for Benitez.	Student to observe chair-side work for two hours, 20 Mar.
15 Mar	Palo Verde Mental Health Center, arrange career visit for White.	Dr. Rosenblatt will discuss career area with student.
16 Mar	Arenson Construction Co., Program discussion for job station.	Manager, Mr. Dunn, says their business too slow to take student.
18 Mar	Mr. Griffith, Desert Valley Office Supply, re student for next year.	Will take a student to replace Alan Lee; would also like a girl.
18 Mar	Caulkins, Jim: Interview for placement at Desert Valley Off.	Interview sonedule with Mr. Griffith late in week.
16 Mar	Mr. Villaescusa, DMAFB: Discuss job stations at Base for summer.	Will keep all stuoents presnetly working if funding will permit.
19 Mar	Hummel, David: Discussed job placement as janitor.	Student has severe school attendance problems.
19 Mar	Gonzales, Steven: Discussed job placement as carpenter.	Student has no training or skill for job; referred to Summer Job Prog.
19 Mar	Mada, Maria: Employed at DMAFB, missing classes at school.	Dean's office may drop from school because of poor attendance.
20 Mar	Mr. Ames, Tuc. Engine Rebuild.	Will take student trainiee.

MODEL CITIES EXEMPLARY VOCATIONAL EDUCATION PROJECT

Staff Log

1973-74

Name: R.W. Myers

Date	Activity	Follow-Up (Optional)
20 Mar	Gilmore, Craig: Job interview for drive-in theater position.	Mr. Malone: Will accept Craig on trial basis.
20 Mar	Out sick, most of day.	
21 Mar	Williams and Wesner to Pima CC for pre-enrollment visits.	Wesner will enroll in welding; Williams uncertain.
21 Mar	Mr. Griffith, Desert Valley Office supply. Arrange interview, Caulkins.	Will take replacement for Alan Lee, summer and fall.
21 Mar	Hopper, Pam: Interested in summer job placement.	Would like office work and part time work next fall.
21 Mar	Caulkins, Jim: Coordinate job interview, Desert Valley Office.	Interview established on 25 Mar.
21 Mar	Castillo, Becky: Interested in office skills position.	Referred to Mrs. Knauss, Coop' Office Ed. Program.
21 Mar	Martinez, Mickey: Interested in job as sales clerk.	Referred to Distributive Ed. coordinator for assistance.
22 Mar	Durham, Jim. Job site visit, AZ Auto Enterprises.	Continues to make good training progress; no problems.
22 Mar	Benitez, Chris': Job side visit, Dr. Schmitz, DDS	Has made good progress in lab' and chairside techniques.
25 Mar	Reyes, Manuelita: Follow-up on job progress.	Will apply for full time employment when school is out.
25 Mar	Davie, Rosalyn: Follow-up on job progress.	Does not feel she is getting enough hours to warrant trip.
25 Mar	Huarague, Christine: Follow-up on career visit to Southern Pac.	Feels she learned more about various office jobs available.
25 Mar	Caulkins, Jim: Follow-up on job interview.	Accepted for employment; start OJT on 27 Mar.
26 Mar	Mr. Hopkins, Environmental Farms.	Wants to cut students job hours from 30 to 20 per wk. Good.
26 Mar	Mr. Ames, Tucson Engine Rebuild, re student placement.	Ochoa is working and seems to be making good start on learning job.
27 Mar.	Mr. Henry, Henry Electric. termination of student worker.	Will terminate Bescott on 29 Mar; no more students to this job.
28 Mar.	Job site visit, Joe Baker.	Discussed reduction of job hours. Better for Joe's school work.
28 Mar	Job site visit, David Padilla, Auto Machine & Supply.	Employer intends to hire student full time after graduation.
29 Mar	Attended VICA competitions in Phoenix.	Wesner and Ortiz took first place in welding competition.

MODEL CITIES EXEMPLARY VOCATIONAL EDUCATION PROJECT

Staff Log

1973-74

Name: Myers, R.W.

Date	Activity	Follow-Up (Optional)
2 Apr	Reyes, Manuela: Discuss full time employment after graduation.	Made interview appointment w/Mr. Villaescusa, DMAFB.
2 Apr	Gilmore, Craig: Follow-up on job placement.	Assisted with placement for income, drive-in theater.
2 Apr	Mesner, Mark: Follow-up on VICA welding competition.	Mark has been with program 2 yrs; took 1st place at State meet in welding.
2 Apr	Godinez, Trina: Assisted with class schedule problem.	School attendance problems, adjusted schedule may help.
2 Apr	Caulkins, Jim, follow-up on job placement, Desert Valley Off.	Has started OJT to replace Allan Lee. Likes job.
2 Apr	Kovacs, Mary: Discussed job progress and P/S plans.	Would like to learn more about child development; applied PCC.
2 Apr	Lem, Angela: Job site visit, DMAFB Fire Station #2.	Good supervisor report; doing well and likes job.
2 Apr	Arrington, Linda: Job site visit, Plans Office, MASDC, DMAFB.	Supervisor commented on good attitude and work habits.
2 Apr	Cota, Leticia: Job Site Visit, Quality Control, MASDC, DMAFB.	Supervisor has expanded responsibilities.
2 Apr	Mesner, Mark: Job site visit, MASDC, DMAFB.	Supervisor will start to stress test and inspection of welds.
3 Apr	Mary Itoni, Palo Verde Mental Health Center, re Moira White.	Arranged career interest visit to child guidance center.
3 Apr	Flores, Victor: Job site visit, Randolph Park Zoo.	Supervisor would like to have work during summer months.
3 Apr	Arrington, Linda: Job site visit, Plans Office, MASDC, DMAFB.	Supervisor rates her work as excellent. No problems.
4 Apr	Smith, Sherri, Job Site Visit, [illegible] Library, Dept.	Sherri has been promoted from Student Aide to Clerk I.
4 Apr	Mr. Burns, Director of Personnel, City of Tucson.	Discussed summer employment for Exc'd. Voc Ed students.
4 Apr	Flores, Victor: Requested assistance on preparation of W. Com.	Applied for admission to Col. of Bus. and Public Admin.
4 Apr	Ramirez, Lisa: Requested assistance with scholarship form.	Applying for DMAFB scholarship for College of Nursing.
4 Apr	Epps, Roberta: Assisted with City employment application form.	Will apply for lifeguard job during summer months.
4 Apr	Made two segments of video tape for Diversified Occ. program.	To be added to job site and [illegible] tapes.
5 Apr	Mr. Tuller, Tuller Trophy Co.	Will take student from Photo.

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MODEL CITIES EXEMPLARY VOCATIONAL EDUCATION PROJECT

Staff Log

1973-74

Name: [illegible]

Date	Activity	Follow-Up (Optional)
[illegible] Apr	Trowbridge, Sandy: Coordinated employment interview, Tuller.	Did not accept job; felt it was too routine/repetitious.
[illegible] Apr	Mr. Patrick, Harwood Advertising, Discussed placement of student.	Would like to interview student with vocational photo background.
[illegible]	Andrews, Robert: Coordinated employment interview, Harwood.	Initial interview with shop foreman; Followup with Mgt.
[illegible] Apr	Environmental Farms, Job site visit, Joe Baker.	Student has earned wage increase to $2.25/hr; will stay summer.
[illegible] Apr	DMAFB job sites visited: Arrington, Concern, Cota and Hayes	Hayes is missing work; no excuse. May be released.
[illegible]	Cephus, Robert: Follow-up on job progress.	Would like to work more hours at higher pay.
[illegible] Apr	Davis, Rosalyn: Dr. Sickler. Plans to resign within 2 wks.	Job too far from home/school; not enough hours.
[illegible]	Erps, Roberta: Discuss summer job in recreation.	Would like to work during summer and next fall.
[illegible]	Molina, David: Discussed post secondary planning.	Coordinate individual visit [illegible] management Dept. PCC.
[illegible] Apr	Gerdo Lenon: Worked on video tape for Phoenix Ed Fair.	Edited and narrated program video tape.
[illegible]	White, Moira: Coordinated visit to Conceur School.	Individual career information visit w/ Mary Itoni.
11 Apr	Spring Vacation	
12 Apr	Spring Vacation	
15 Apr	Spring Vacation	
16 Apr	Cephus, Robert. Follow-up for summer job placement.	Has applied for summer job with city.
16 Apr	Molina, David: Follow-up on visit to PCC.	Will make visit during week of 22 April.
16 Apr	Mr. Ken Thompson, State Dept of Education, Cooperative Programs.	Couldn't make much sense out of this affair.
17 Apr	Dr. Sickler, Followup on Davis's resignation.	Was satisfied with student's work and progress.
17 Apr	Ramirez, Lisa: Assist with Scholarship Application, DMAFB.	Applying to U of A College of Nursing.
18 Apr	Mr. Villaescusa, DMAFB	Review DM portion of video tape.

MODEL CITIES EXEMPLARY VOCATIONAL EDUCATION PROJECT

Staff Log

1973-74

Name: A.A. Myers

Date	Activity	Follow-Up (Optional)
19 Apr	Andrews, Robert: Follow-up on [illegible] Harwood Advert.	Called Mrs. Harwood; can't decide until manager comes back.
19 Apr	White, Moira: Follow-up on visit to Sunnyvale School for handicapped.	Having second thoughts about special education.
19 Apr	Glenn Broyles: Coordinate use of video tape equipment.	Will be available 24 Apr to make tape for Education Fair, Phoenix.
19 Apr	Mr. Mecham, US Coast Guard, Phoenix: Career info on Academy	Will forward additional info on USCG careers.
19 Apr	Keith Ames, Tucson Engine Rebuild: Check re second student job.	Will interview Craig Gilmore on 22 April for job.
20 Apr	White, Moira: Discuss personal problems.	Student is trying to do too much; counseled to slow down.
20 Apr	Baker, Joe: Discuss course and class load.	Has 23 credits; will drop two courses for more work time.
23 Apr	Mr. George, Hughes Aircraft Co.: Discuss possible student jobs.	Will not accept students; will take applications from grad's.
24 Apr	Quintana, Angel: Previous student needs assistance in employment.	Made appointment for Angel to meet Mr. George, Hughes A/C.
24 Apr	Durham, Jerry: Discussed job and school progress.	Doing well on job, school attendance improving.
25 Apr	Fimbres, Victor: Assisted with U of A paper work.	Has been accepted by Coll. of Business and Public Admin.
25 Apr	Reyes, Manuelita: Discuss job and school attendance problems.	Has family problem; thrown out of home for two days - back now.
25 Apr	Wada, Mary: Discuss school and job attendance problem.	Has been trying to help Reyes; missed 3 days work/school.
25 Apr	Huaraque, Christine: Discussed job progress - no problems.	Student has submitted application for full time work after grad.
25 Apr	Departed for Phoenix for Education	Fair.
26 Apr	Participated with Exemplary Program's Ed Fair activity.	
29 Apr	Cordova, Norma: Still has family problems - wants to leave home.	Discussed problem and alternatives; will remain in home until graduation.
29 Apr	Mr. Barbour, Bonded Automotive: Discussed student placement.	Will not take student; will take a grad's.
30 Apr	Dr. Schmitz: Will take another girl for full time summer job.	Leticia Cota would like to transfer from DWAP to job.

MODEL CITIES EXEMPLARY VOCATIONAL EDUCATION PROJECT

Staff Log

1973-74

Name: R.A. Myers

Date	Activity	Follow-Up (Optional)
1 May	Job Site visit, Richard Ochoa, Tucson Engine Rebuild Co.	Continues to make excellent progress. Working on boring machine.
1 May	Job site visit, Chris Benitez. Dental Tech., Dr. Schmitz.	Has applied to NAU for Dental Hygiene course.
2 May	Mr. Kaufman, University Delicatessen: Needs boy.	Will train student in fast food service and management.
2 May	Lorraine Marquez: Attended hearing on unemployment Comp.	Lorraine has applied for comp. based on work as student.
3 May	Fimbres, Victor: Has been accepted for enrollment, U of A.	Assisted in completing pre-enrollment info forms.
3 May	Cephus, Robert: Discuss job progress.	Job is OK but still having class attendance problems.
3 May	Caulkins, Jim: Follow-up on job placement, Desert Valley Off.	Has started learning routine from Joe; full time 7 June.
3 May	Pamela Hooper: Would like summer job.	Possible placement at Mart; mother may object.
3 May	Art Villaescusa: Discuss summer jobs at D.G.S.S. for Program Students.	Plan for all students to retain present job stations.
6 May	Mr. Piotrowski, Industrial Equipment Services, Job Station.	Appointment for Rich Ortiz, job interview, welding.
6 May	Norma Cordova: Discuss home problems and job progress.	Will stay at home until graduation. Job progress is fair.
6 May	Phil Lauver, U of A Counseling Dept: Discuss program for White.	Arrange individual career visit for Moira White.
7 May	Robert Andrews: Discuss summer job in photo or printing.	Wants experience in graphic arts job.
7 May	Ramirez: Discuss enrollment in College of Nursing, U of A.	Accepted for enrollment but has money problem.
7 May	Manuela Reyes: Discuss home problem and job progress.	Still in trouble with father. Job attendance poor.
7 May	Gilmore, Craig: Discuss job progress, Lawyer Theater.	Has been given pay raise and longer hours.
7 May	Virginia Williams: Discuss post secondary planning.	Needs some skill development work. Interested in Pima Comm. College.
8 May	Job Site visit, Jim Durham: Excellent progress; no problems.	Will start some work in office; order and manage parts.
8 May	Ortiz, Richard: Follow-up on job interview, Ind. Equip. Svc.	Manager wants info on Child Labor laws before decision.
8 May	Joe Baker, Job site visit, [illegible]	Received pay raise plus more hours and summer job.

BEST COPY AVAILABLE

MODEL CITIES EXEMPLARY VOCATIONAL EDUCATION PROJECT

Staff Log

1973-74

Name: R.W. Myers

Date	Activity	Follow-Up (Optional)
8 May	Mr. Winter, State Employment Svc: Obtained Child Labor regs.	Up-date on current data. Copy for Mr. Piotrowski.
9 May	Mr. Piotrowski: Discussed placement of Ortiz as welder.	Richard can start as soon as school is out.
9 May	Sherri Smith: Discuss job and post secondary planning.	Accepted at U of A. Will work summer for more money.
9 May	Mr. Von Issed, Tucson News Inc. — Discussed summer placements.	Will meet on 15 May for further discussions on student aides.
10 May	Marilyn Lewis: Discuss post secondary planning.	Still undecided; appears more interested in welfare.
10 May	Adela Gallardo: Post Secondary planning.	Will stay at [illegible] until August has applied for full time work.
10 May	Peter Dalton: Needs summer job. Wants work in auto body repair.	Poor appearance and attitude. Bombed two job interviews.
10 May	Maria Mada: Discussed school attendance problems, English Class	Problems at home; upset. Won't graduation without English.
10 May	Victor Ambrose: Follow-up on visit to U of A.	Met with Mr. Alissoie and discussed enrollment schedule.
10 May	Barbara Matthews: Re summer job at DMAFB, photo or library.	Line up for Lewis' job in Base Library.
13 May	Pena, Michael: Discussed summer job at DMAFB, NDT Shop.	Senior - can't fit into program at this late date.
13 May	Matthews, Barbra: Discuss possible placement in photographic job.	[illegible] No photo jobs available.
13 May	Mary Melton, [illegible]: Discussed summer youth job program.	Will not consider sending staff to THS for job assignment.
13 May	Mr. Starr, THS: Discussed problems of sending students to NYC	[illegible] use of THS facilities; no way.
14 May	Oberon, David: Discuss job placement for summer.	Possible placement at Haskel Laundry - dock worker - income.
14 May	Mr. Petrowski, Industrial Equip. Services, Inc: Job Station	Discussed welding job for Richard Ortiz for Summer-Fall
15 May	Mr. Van Issen, Tucson News, Inc. Discuss job stations.	May be able to use Jaquez in Accounting Dept., interview later.
15 May	Kovacs, Mary: Discuss post-secondary planning.	Has applied to PCC; will work during summer.
15 May	Job site visit, Environmental Farms: Joe Baker.	Joe is working 20/week. Raised to $2.25/hr. No problems.
16 May	Soto, Leticia: Job discussion.	Will stay at [illegible] during summer.

BEST COPY AVAILABLE

MODEL CITIES EXEMPLARY VOCATIONAL EDUCATION PROJECT

Staff Log

1973-74

Name: [illegible] Myers

Date	Activity	Follow-Up (Optional)
17 May	Duarque, Christine: Discuss [illegible]	Has applied for full time job [illegible] Reserve Center.
17 May	Gallardo, [illegible]: Follow-up on new job at El Rio Health Center.	Part-time office work and [illegible]; possible full time later.
17 May	Ramirez, Lisa: Discuss U of A enrollment.	Has letter of acceptance from College of Nursing.
17 May	Williams, Virginia: Discuss post secondary training.	[illegible] undecided; considered [illegible] courses at Pima Com Col.
20 May	Received check for $75 from Gov't Employees Union, [illegible]	Donation for Lesner's trip to [illegible]-VICA competition-
20 May	Ortiz, Richard: Coorindate job interview with Mr. Petrowski	To discuss possible summer job as welder.
21 May	Pimbres, Victor: Discuss U of A enrollment, Bus & Pub Admin.	Very excited. Has registration problems - discussed options.
21 May	Mr. Swigert, Randolph Park Zoo; Discussed summer job for Pimbres.	Will retain Victor until mid August; may take new student.
22 May	Quintana, [illegible]: Discussed possible DCP participation.	Student now working in office [illegible] want to come back to school.
22 May	Cim, Mary: Requested assistance with summer job placement.	NYC is screwed up beyond all recognition.
22 May	Ochoa, Richard: Discussed job progress, Tucson Engine Rebuild	Reduction in hours because of [illegible] business.
22 May	Padilla, David: Discuss job at Auto Engine and Supply Co.	David will graduate and has full time job offer from firm.
22 May	Job site visit, Jim [illegible], Arizona [illegible] Com.	Continues to improve. Will [illegible] to see [illegible] and him.
23 May	Job site visit, Sherri Smith: City Library Department.	Promoted to temporary Clerk I job. Will stay during summer.
23 May	Job Site Visit, Pimbres: Randolph Park Zoo	No problems; will stay for summer job.
24 May	Job Site Visit, Cordova, [illegible], [illegible] Office, [illegible]	Supervisor is concerned over low skill levels for full time job.
24 May	Job Site Visit, Arrington, Linda, Public Relations Office, [illegible]	Supervisor commented on good attendance and attitude.
27 May	Smith, Sherri: Follow-up on job site visit.	Discuss summer schedule and U of A enrollment.
27 May	Mr. Welsh, Welding Instructor: Follow-up on VICA donation.	DA contribution has put fund driver "over the top".
27 May	Worked on Supervisor's evaluations.	Average rating 1.96.

MODEL CITIES EXEMPLARY VOCATIONAL EDUCATION PROJECT

Staff Log

1973-74

Name: [illegible] Myers

Date	Activity	Follow-Up (Optional)
28 May	Mr. Lorancer, Rexall Drug Store: discuss job training station.	Will take student 18 or over; possible for late summer.
28 May	Job site visit, Manuela Reyes, [illegible] to discuss supervisors report.	[illegible] has a hard time getting to work every day - motivation
28 May	Job site visit, Sculley and [illegible] - follow-up on [illegible] rpt.	Supervisor would like to move [illegible] to welding shop.
28 May	Job site visit, Ocho: discuss supervisor's evaluation.	No problem; Bettie is good for summer job thru August.
29 May	Mr. Van Isser, Tucson News, Inc. Follow-up on job placement.	No decision on Jaquez; waiting current employee to leave job.
28 May	Registered students for Fall semester for Diversified Program.	27 students for work program; 21 for related info class.
29 May	Mr. Stephens, Auto Machine and Supply Co. re summer jobs.	Has full employee staff; no openings until fall.
[illegible]	Durham, Jim: Assist with [illegible] problems.	Requires additional English credit to graduate - summer school.
29 May	Flores, Victor: Assist with summer school registration.	Needs Geometry for U of A [illegible] requirement.
29 May	Ramierez, Lisa: Discuss personal problem with family.	Attitude adjustment period. Guided thru decision process.
30 May	Kovacs, Mary: Discuss job [illegible] and summer employment.	Has registered at Pima CC; [illegible] work until start of school.
30 May	Cohen, Richard: Discuss fall class enrollment.	Too many "micky mouse" courses; needs English and Am Gov't.
30 May	Newbrey, Rory: Discuss summer job at Environmental Farms.	First coordination of summer and fall placement.
30 May	Ortiz, Richard: Discuss summer job station.	Has started work at Industrial Services as Welder.
30 May	Mr. [illegible], [illegible]: Transfer Werner to Welding Shop.	Mark will go to Base Welding Shop as arc welder, 3 June.
30 May	Gilmore, Craig: Discuss summer job and fall placement.	Will stay with current job for income; need fall job for tng.
30 May	Robles, Rosemary: Assist with fall registration.	Enrolled in Business Ed Crs as back up for DCE program.
31 May	Al Arellano, Pueblo High School to discuss VICA program.	Info on youth group for next fall's DCE program.
31 May	Mr. Swigert, Randolph Park Zoo Discuss summer job placement.	Will retain Victor Flores; may take 2nd student later.
31 May	[illegible], Roberta: Summer job.	Possible Randolph Park Zoo.

POST-SECONDARY ACTIVITY FOLLOW-UP AND POST-SECONDARY PLANS OF "CRISIS-PRONE" STUDENTS

TABLE 5

Activity/Plans	1971-72	1972-73	1973-74	Totals	Percent
Employed(1)	5 (29.4%)	13 (21.66%)	6 (16.66%)	24	21.2%
Community College	3 (17.64%)	7 (11.64%)	4 (11.11%)	14	12.3%
Four Year University	1 (5.88%)	2 (3.33%)	11 (30.55%)	14	12.39%
Returned to High School(2)	3 (17.64%)	5 (8.33%)	7 (19.44%)	15	13.27%
Military Service	1 (5.88%)	4 (6.66%)	2 (5.55%)	7	6.19%
Drop-out; did not return to school.	-	11 (18.33%)	4 (11.11%)	15	13.27
Other	1 (5.88%)	4 (6.66%)	1 (2.77%)	6	5.30%
Unable to locate	3 (17.64%)	14 (23.33%)	1 (2.77%)	18	15.93
	17	60	36	113	99.95

Notes: These data represent only those students who were formally enrolled in the Exemplary Vocational Education Program at Tucson High School. The data does not include 30 students who were provided some type of assistance but were never placed on job stations or enrolled for credit.

(1) The figure shown under the 1973-74 column represents students who have been accepted by their job station employers for full time employment upon graduation from high school.

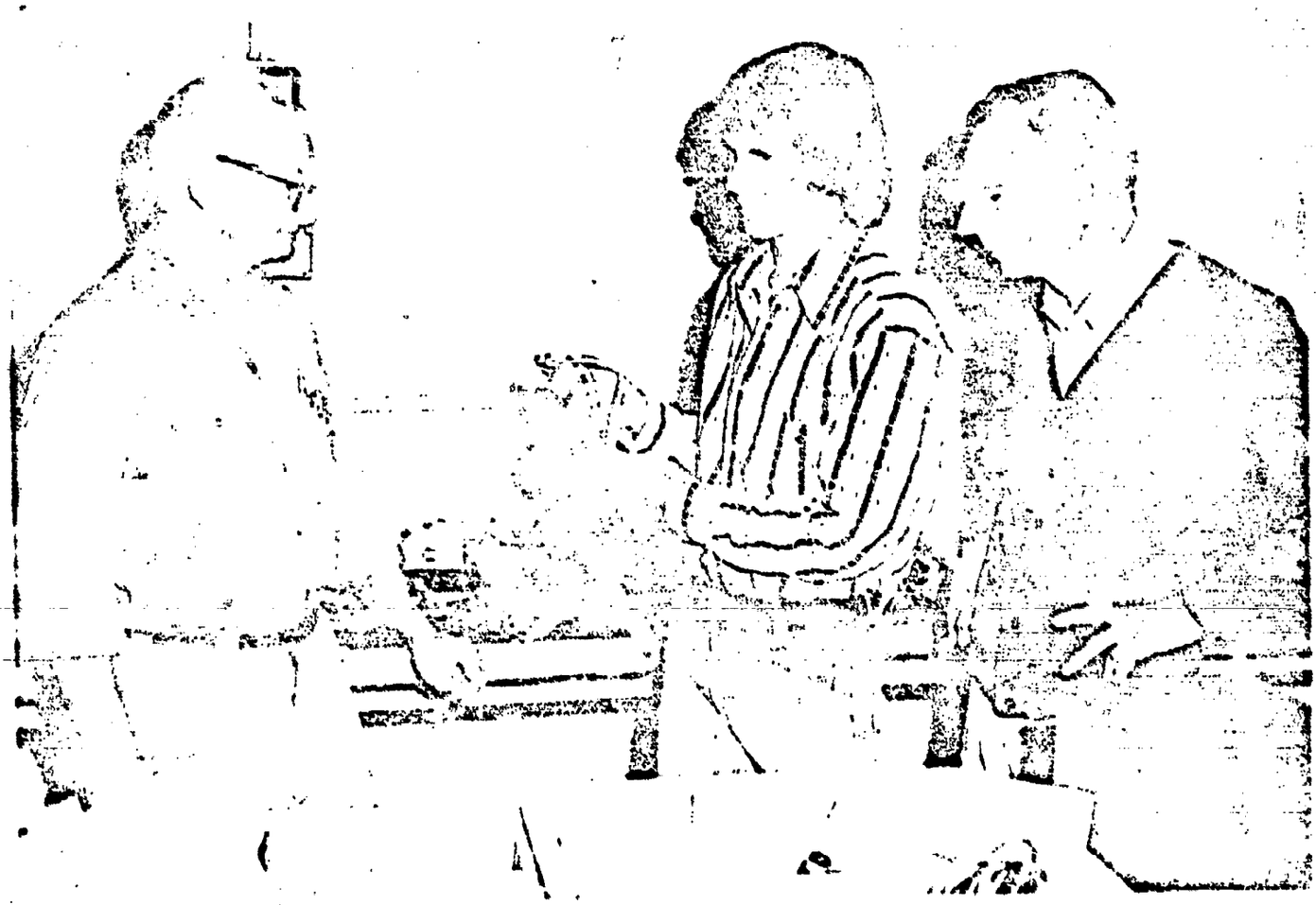
(2) These figures represent 11th grade students who returned to complete the 12th year of high school.

(3) Two full time employment coordinators were assigned to the Tucson High School Office during 1972-73 school year.

FIRST PLACE

STATE WELDING COMPETITION

1973 - 1974



APPENDIX E

Dissemination/Outside Activities

The Arizona Associated Directors of Career Education are planning a three-day workshop for the professional staff on May 28, 29 and 30 at the Safari Hotel, Scottsdale.

Dr. Jerry R. Booth, Chairman of the workshop and Director of Santa Cruz Career Education Project, Nogales, explains, "For three years, Career Education projects across the state have been producing transportable programs. The workshop provides an opportunity to share with the professional staff good ideas that have worked in the classroom, and community involvement in Career Education projects."

Principal speakers are Dr. W. P. Shofstall, State Superintendent of Public Instruction and Honorable Senator D. Delos Ellsworth, Chairman of the Education Committee.

State education officials participating include Eugene Dorr, Associate Superintendent for Career and Vocational Education, Paul Bennevitz, Assistant Superintendent for Career Education, William J. Anderson, Assistant Superintendent for Vocational Education and Dr. Beverly Wheeler, Director, RCU (Research Coordinating Unit).

Career Education project officers and executive and project executive board members as well as interested Arizona legislators and business and industry representatives are invited.

In addition to demonstrations and exhibits of the best from each project, commercial vendors will present curriculum and media materials.

ASSOCIATED DIRECTORS
of Career Education
ARIZONA
402 MARTINEZ . NOGALES, ARIZONA 85621 (602) 287-5644

May 16, 1974

Mr. John Michaels
Morrow Center
P. O. Box 4040
Tucson, Arizona 85717

Dear Mr. Michael.

In confirmation of our telephone conversation, there will be a conference for all professional staff members of Career Education Projects in Arizona. The conference title: Arizona Career Education, the topic: "Sharing Three Years of Career Education in Arizona".

The conference will be held May 28, 29 and 30, at the Safari Motel in Scottsdale. Invited guests for the entire workshop include all Arizona Career Education Projects, Professional Staff, Project Officers, Tucson Model Cities Personnel, Exemplary Project Personnel and various State Department of Education Personnel.

Additional guests invited for the Wednesday sessions will also include members of your local Board of Directors and all Legislators. The number that attend may depend on your follow-up.

If you have suggestions as to additional guests that should be invited to any sessions, please notify me so that they may receive an invitation.

We anticipate a registration fee for the three days of $13.50 which will cover the cost of lunches and coffee.

It has been suggested that the easiest way to handle finances at the hotel would be for individuals to pay their own accomodations and be reimbursed by their project.

Enclosed is a tentative schedule of events. A detailed agenda will be printed later. Please note that your project is responsible for the following topic:

Student Centered Activities
Manned Exhibit

In the tentative schedule, you will probably find yourself down for only one presentation, however in the final agenda we will be scheduling additional sections of some presentations. Instead of only four (4) presentations at a time there will probably be six (6) running simultaneously.

It will be the responsibility of the Project Director to schedule his staff for maximum coverage of presentations. The Proposal management presentation is directed toward Project Directors. Other sessions are pretty much open at this time.

If you have any suggestions please call or write. Looking forward to seeing you the twenty-eighth.

Sincerely,

Jerry Booth
Chairman

encl: 1

JB:aa

Thanks for your cooperation.
I'll send the Agenda
as soon as possible

TUCSON PUBLIC SCHOOLS
ROBERT D. MORROW EDUCATION CENTER
P.O. BOX 4040
1010 EAST TENTH STREET
TUCSON, ARIZONA 85717

PROGRAM ORIENTATION and ACENDA

APRIL 25, 26, 1974

THURSDAY, April 25, 1974

1:00 P.M. Leave for Phoenix, Meet at 75 North Park

4:00 P.M. Check in - Hotel Clarendon, 401 West Clarendon
Phone 263-0616

4:30 P.M. Set up exhibit, Booth 108, Phoenix Civic Plaza, Assembly Hall

FRIDAY, April 16, 1974

8:45 A.M. Registration, Lobby, Civic Plaza Exhibit Hall

9:30 - 10:15 General Session - Civic Plaza Assembly Hall

10:15-11:45 A.M. Exhibit Visitation - 108,
Bob Myers Paul Mihalik
John Michel.

12:00-1:30 P.M. Luncheon - Civic Plaza Phoenix Room
Speaker - George Jessel.

1:30-1:45 Booth Exhibit - G. William Turner
Richard Morganti
John Michel

1:45-2:00 P.M. Set up for Program Presentation, Flagstaff Roon N-10

2:00-2:50 P.M. Presentation - Flagstaff Room, N-10.

2:50-4:00 P.M. Exhibit Booth - Richard Morganti
G. William Turner
John Michel

4:00-5:00 P.M. Exhibit Booth - Robert Myers
Paul Mihalik
John Michel

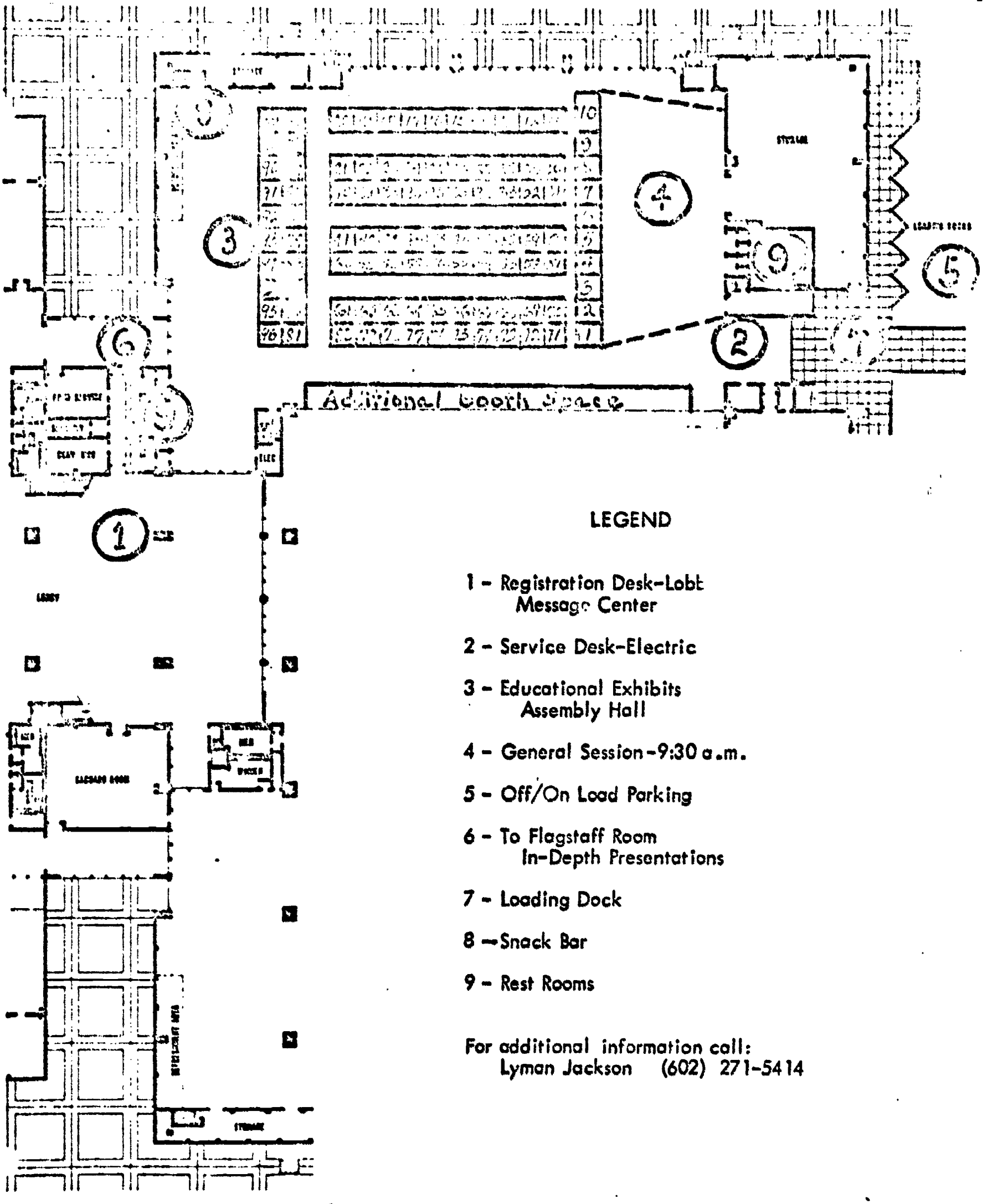
5:00-7:00 P.M. All Exemplary Staff

7:00 P.M. Clear Booth

PRESENTATION

2:00 - 2:50 P.M.

2:00 - 2:01 P.M.	Introduction	J. Michel	1 min.
2:01 - 2:06 P.M.		L. Bazzetta	5 min.
2:06 - 2:08 P.M.	Film Readiness	P. Mihalik	1 min.
2:09 - 2:13 P.M.	Narration	P. Mihalik	5 min.
2:13 - 2:24 P.M.	Narration	R. Morganti	6 min.
2:24 - 2:27 P.M.	Narration	R. Myers	3 min.
	Elementary - Kit Handout	P. Mihalik	5 min.
	Junior High - Video	R. Morganti	3 min.
	High School - Video	G. W. Turner	3 min.
	Evaluation - Complete Project	C. Crowder	8 min.
	Question and Answer Period		5 min.
	Closing Remarks		1 min.
	State Department Evaluation		3 min.
	Evacuation of Room		



LEGEND

1 – Registration Desk–Lobt
Message Center

2 – Service Desk–Electric

3 – Educational Exhibits
Assembly Hall

4 – General Session–9:30 a.m.

5 – Off/On Load Parking

6 – To Flagstaff Room
In-Depth Presentations

7 – Loading Dock

8 –Snack Bar

9 – Rest Rooms

For additional information call:
Lyman Jackson (602) 271-5414

PROJECT PERSONNEL

Louis J. Bazzetta, Director of Career and Occupational Education

John T. Michel, Supervisor
Model Cities Exemplary
Vocational Education Program

Nancy Coyle, Secretary

Paul Mihalik, Elementary Resource Person

Richard Morganti, Junior High School Resource Person

Robert Myers, Vocational Guidance Counselor

G. William Turner, Student Parent Advisor

Rosemary Lizardi, Elementary Aide

Anna Quinlan, High School Aide

Dr. Chris Crowder, Internal Evaluator

Southwestern Research Associates,
External Evaluator

Additional Information may be obtained in Booth #108 of the Educational Fair, or by writing directly to:

John T. Michel, Supervisor
Model Cities Exemplary
Vocational Education Program
Tucson Public Schools, Dist. #1
P. O. Box 4040
Tucson, Arizona 85717

PROGRAM

Introduction	John T. Michel Supervisor, Model Cities Exemplary Vocational Education Program
Background Information	Louis J. Bazzetta Director, Career and Occupational Education
Film "Project in Action"	Narrated by Paul Mihalik, Richard Morganti, Robert Myers
Hands-On Experiences	Paul Mihalik
Video Tape Presentation	Richard Morganti, G. William Turner
Evaluation	Dr. Chris Crowder Internal Evaluator

Question and Answer Period

Closing Remarks

Completion of Evaluation

QUARTERLY REPORTS MAILED TO THE FOLLOWING:

Mr. Gerald Gilder, Counselor
Casa Grande Elementary Schools
300 West McMurray Boulevard
Casa Grande, Arizona 85222
Mailed April 8, 1974

Miss Gladys Grebee
Assistant Librarian
Tommyson Library
State College of Arkansas
Conway, Arkansas 72032
Mailed April 23, 1974

Mr. Richard A. Greene
2216 Chadwick Street
Hillcrest Heights, Maryland 20031
Mailed April 29, 1974

W. P. SHOFSTALL PH.D.
SUPERINTENDENT

Arizona
Department of Education
1535 WEST JEFFERSON
PHOENIX, ARIZONA 85007
271-5190

May 6, 1974

Mr. John T. Michel
Tucson School District No. 1
P. O. Box 4040
Tucson, AZ 85717

Dear Mr. Michel:

The Third Annual Education Fair was an enormous success and on behalf of the Department of Education, we want to personally thank you for your untiring efforts in exhibiting your program. Your contribution helped to make this a successful event.

In terms of quantity, you will be interested to know that there was a total attendance of close to 3500 people, with over 500 attending the noon luncheon and approximately 450 individuals in attendance at the special presentations throughout the day. In terms of quality, the exhibits speak for themselves - they were outstanding!

The quality of exhibits reaffirms our belief that the creativity and originality each exhibitor puts into their display makes the Education Fair a truly unique event.

We look forward to next year's Fair and your continued interest and support.

Sincerely,

Fred J. Sughrue
Deputy Associate Superintendent

Lyman Jackson
Fair Coordinator

F2/lm/03/5.2

W P SHOEMAKER PH D
SUPERINTENDENT

Arizona
Department of Education
1535 WEST JEFFERSON
PHOENIX, ARIZONA 85007
271-5191

May 15, 1974

Mr. Louis Bazzetta
Tucson School District #1
P. O. Box 4040
Tucson, AZ 85717

Dear Mr. Bazzetta:

The Fair was an enormous success and we want to personally thank you for your work in constructing an excellent exhibit. We also want to express our appreciation of your added effort in preparing and making the presentation.

Because of your untiring efforts, the Third Annual Education Fair was the best yet.

For your information, there were nearly 3,500 people in attendance at the Fair with approximately 450 attending the presentations and over 500 at the noon luncheon.

We look forward to your interest and support of next year's Fair.

Thanks again.

Sincerely,

Fred J. Sughrue
Deputy Associate Superintendent

Lyman Jackson
Fair Coordinator

T2/1f/06/5.14

CURRICULUM GUIDES MAILED TO THE FOLLOWING:

Ms. Jahala Stirling, Elementary Resource Teacher
School Board of Alachua County, Florida
1817 East University Avenue
Gainesville, Florida 32601
Mailed April 2, 1974

Mr. Keith Edward Smith, Director of Career Development
and Research
Delmarva Advisory Council
Delmarva Career Education Program
P. O. Box 711
Salisbury, Maryland 21801
Mailed May 17, 1974

MINUTES

April 4, 1974 - Arizona Education Fair Exhibitor meeting

The meeting, conducted by Lyman Jackson began at 10:00 a.m. Lyman discussed with the exhibitors the purpose of the Fair and the problem in getting the teachers to attend. There was a letter from Dr. Shofstall asking the schools to release the teachers at the end of the teaching day or if at all possible, for the day. George Jessel will speak at the opening session, will walk through the exhibits and will speak again at noon.

Monies for tickets sold could be turned in today to Theda. Lyman introduced the staff - Theda Thaxton, Jewel Sisemore and Bea Shreeve.

Unloading instructions: Unload on the east side of the Plaza. The layout of the entire area was explained. The electrical hook-ups are arranged with the Special Events Coordinator, and are to be taken care of by the exhibitor. The contact man is Jerry Crotts, 272-1337. There is a fee for parking in the underground parking space, $1.50 for the day or 25 cents each half hour - maximum $1.50. It will be necessary that the forms for reserving the tables and chairs be turned in today if at all possible to Bea Shreeve.

The booth area layout was described. Only one area has a stationary wall and that is on the South. Set-up time: from 12:00 noon to 9:00 p.m. on the 25th. A question of security was brought up and it was recommended that any high risk equipment be removed on the night of the 25th in preference to being left. It was requested that all booths be taken down Friday night. Do not leave until Saturday morning. All spaces will be clearly marked and indicated by a number and corner markings.

All booths should be constructed in accordance with the City Fire Code. The Fire Marshal may come in or he may not, but the exhibits should be fire retardant. It would be ideal if you had a list of materials used in the booth and if the Marshal came in you could show him the materials that were used. Make a very serious effort to make all things fire retardant. Inasmuch as paper cannot be classed in this catagory, it was suggested that there not be a great deal of materials loose on the table; that the bulk of materials stay boxed with just a few copies at a time out for display. A fire retardant solution could be made of four ounces of boric acid, nine ounces of borax powder and 1 gallon of warm water. Anything dipped in this solution makes it flame resistant. Another reference for a flame retardant material could be the Arizona Flame Proofing Company on West Thomas. Their flame retardant sells for $4.00 a gallon.

The program was referred to and a question was brought up as to locking or closing the exhibit during the lunch hour and this was discussed (the exhibit hall will remain open to the public all day).

F2/sv/01/4.12

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
OFFICE OF EDUCATION
WASHINGTON, D.C. 20202

February 15, 1974

TO WHOM IT MAY CONCERN:

This will certify that the U. S. Office of Education has contracted with Development Associates, Inc., 1521 New Hampshire Avenue, North West, Washington D. C., to conduct an "Evaluation of Vocational Exemplary Projects" (Contract # OEC-0-73-6663). This is a study of the projects funded under Part D of the Vocational Educational Act of 1963, as amended.

John Gutierrez is an employee of Development Associates, Inc., and is engaged in this project. We will appreciate your cooperation in our effort.

John W. Evans
Acting Deputy Commissioner
of Planning
U. S. Office of Education

DEVELOPMENT ASSOCIATES, INC.

MANAGEMENT AND GOVERNMENTAL CONSULTANTS

2140 WEST OLYMPIC BOULEVARD

SUITE 534

LOS ANGELES, CALIFORNIA 90006

213/487-5740

April 19, 1974

Mr. John Michel
Project Supervisor
Model Cities Exemplary Vocational
Education Program
Morrow Education Center
P.O. Box 4040
Tucson, Arizona 85717

Dear John:

Well I finally had some time to catch my breath and to address this letter of appreciation to you for your cooperation and assistance during our visit in the week of April 1, 1974.

The Vocational Exemplary Study team composed of Mr. Ricardo Lucero and myself successfully completed the tasks as required. I would appreciate it if you would convey this thanks to your total staff.

Under separate cover, the project will receive from our Washington, D.C. office, data as identified earlier relating to this study effort of your project.

Sincerely,

John R. Gutierrez

JRG/bk

ARTERS — 1521 NEW HAMPSHIRE AVENUE, N.W., WASHINGTON, D.C. 20036 • 202/332-5293
— 180 COOK STREET, SUITE 207, DENVER, COLORADO 80206 • 303 / 321-2272

Tucs & urs & dismiss early. ochoa

DEVELOPMENT ASSOCIATES, INC.
MANAGEMENT AND GOVERNMENTAL CONSULTANTS
1521 NEW HAMPSHIRE AVENUE, NORTHWEST
WASHINGTON, D. C. 20036
202/232-5293

March 12, 1974

Mr. Giles Shivers
State Coordinator for
Exemplary Programs
Arizona Department of Education
1535 West Jefferson Street
Phoenix, Arizona 85007

Dear Mr. Shivers:

It was a pleasure speaking with you and confirming that it will be possible to visit the Tucson Exemplary Vocational Education project during the week of April 1, 1974. As we discussed Developmental Associates is under contract with the Office of Education to conduct a national evaluation of the projects funded under Part D of the Vocational Education Act of 1963, as amended. More specifically, the study involves the testing of participating and control students at three grade levels in each of the fifty projects visited. In addition, participating teachers, guidance counselors, and job placement staff will be asked to complete brief questionnaires and the two members on the study team will review fiscal and other process data regarding each project.

With regard to the testing of students, the study team will select random samples of participating students at the 6th, 9th and 12th grade levels. The testing will consist of a student questionnaire to be completed by each student and the administration of the Career Maturity Inventory. Two and one half hours will be required for each administration of the instruments (this includes pre-programmed breaks.)

Based on our telephone conversation, we expect to test a random sample of 30 participating students at the 6th grade level. Assuming that the distribution of students among the elementary schools is essentially as indicated in the federal records, we will expect to test 6 sixth graders each at the Borton, Drachman, Manzo, Ochoa, and Roosevelt Elementary Schools. Our team will confirm these figures on arrival; even if some adjustment must be made, it should not alter the number of sixth graders per school by more than one or two students.

At the 9th grade level we expect to test a random sample of 30 participating students. Based on our conversation, at the 12th grade we expect the need to test up to four groups of thirty participating students. For the purpose of the study, we define five potential strata of 12th grade participants. These are:

DENVER — 180 COOK STREET, SUITE 207, DENVER, COLORADO 80206 • 303/321-2272
HOUSTON — 3220 LOUISIANA STREET, SUITE 203, HOUSTON, TEXAS 77006 • 713/522-2254
SAN ANTONIO — MILAM BLDG., 115 EAST TRAVIS STREET, ROOM 1401, SAN ANTONIO, TEXAS 78205 • 512/224-2319
LOS ANGELES — 2140 WEST OLYMPIC BLVD., SUITE 534, LOS ANGELES, CALIFORNIA 90006 • 213/487-5740

1. 12th grade students enrolled in a project supported cooperative education/work - experience program;

2. 12th grade students enrolled in a project supported "job entry skill training program: but not enrolled in cooperative educational work experience (above).

3. 12th grade students taught by participating teachers but not enrolled in either of the above offerings.

4. 12th grade students served by project supported guidance and counseling (including job placement) services but not included in 1, 2, or 3 above.

5. 12th grade students enrolled in some project activity not included above.

From our discussion, it appeared that the Tucson project may include up to three or four of these groups.

Upon their arrival, the study team will discuss your project in greater detail than was possible by telephone and will review the stratification of 12th graders. We will appreciate your making arrangements for identification and testing students.

To facilitate selection of the student sample, we will appreciate your having rosters of students in each group prepared for our team by the time they arrive. Monday, they will select the students and confirm schedules but will not expect to begin testing until Tuesday afternoon at the earliest.

As we discussed, in addition to testing a sample of participating students, we will need to administer the same instruments to comparable groups of students who have not participated in the Tuscon project. Specifically, we will need a group of 30 comparable 6th graders, 30 comparable 9th graders, 30 comparable 12th graders who have participated in a cooperative education/distributive education type program not supported by Part D funds, and 40 other 12th graders who will serve as a comparison group for the remaining 12th grade participants. We will be most grateful if you can make arrangements for our team to test these groups of students toward the latter part of the week. As we discussed, the criterion for suitable control students is as follows: They should be from the same grade level as the participant sample; they should be from the same ethnic group(s); they should have essentially the same socio-economic background; and they should, your judgment, be suitable for comparison with the corresponding participant group.

It is permissable for control students to be taken from the same schools as are participating students, provided they have not been project participants in the past.

During the week the team will also need to select a sample of participating teachers and counselors and have them complete a self-administered questionnaire. Our experience has shown that the questionnaires typically require no more than twenty minutes to complete. To facilitate the drawing of the teacher and counselor sample, we would appreciate a roster of participating teachers and counselors, arranged by school and grade.

The study team will also need to secure fiscal data. We will utilize two budget forms in securing information. I am attaching the forms in the event that they may be of use to you, prior to the arrival of the team. The "Budget Expenditure Summary" is straightforward and one will be completed for each year of Part D funding. The "Analysis of Activity" form is expected to contain estimates based upon the best judgment of project and district personnel.

Finally, the team will need to hire two or three individuals to assit in the administration of the student tests. It has been our practice to hire individuals from the local substitute teacher list. In some cases, the LEA prefers to utilitze school staff members and for DA to reimburse the school system. In other cases, the LEA prefers that we contract directly with the individual. Would you please advise the team, on the 11th, of the method and procedure that they should follow in securing individuals to assist them.

During the course of the week, the team will also need to obtain information regarding the use of State administered Part D funds. I have instructed the team leader, Mr. John Gutierrez to phone you with regard to arranging an interview with you or a member of your staff. As we discussed, I am including two forms that the study team will use in collecting information on the State programs.

Thank you very much for your cooperation in this review of Part D projects. The members of our study team, Mr. Gutierrez and Mr. Ricardo Lucero, look forward to working with you and the personnel in the Tucson project during the first week of April.

Sincerely,

Russel Schuh

Russel G. Schuh
Assistant Project Director

RGS/pb

TABULATION

EDUCATIONAL PROGRAMS PRESENTATION EVALUATION

Program Title CAREER EDUCATION - MODEL CITY

What type of program best describes this content session? (a = panel, b = speaker, c = workshop, d = mini-lab, e = interactive, f = multi-media, g = other)

a	b	c	d	e	f	g
1	-	-	-	-	1	1

Express your opinion on the following scale as it applies to this session. (Check at appropriate letters. Scale: a = outstanding, b = above average, c = average, d = below average, e = poor, f = no opinion.)

1. Presentor	a	b	c	d	e	f
Method of presentation	3	-	-	-	-	-
Procedures used	3	-	-	-	-	-
Participant involvement	1	1	1	-	-	-
Opportunity for exchange of ideas	1	-	1	1	-	-
Qualifications of presentors	3	-	-	-	-	-
2. Participant						
Renewal and updating of professional skills and knowledge (help me)	2	1	-	-	-	-
Innovative nature of program	2	1	-	-	-	-
Possibilities for application	3	-	-	-	-	-
Interest level and general overall impressions	3	-	-	-	-	-

I also altered:	YES	NO	UNDECIDED
my attitudes	1	1	-
my behaviors	1	-	-
my goals	1	-	-
my procedure	1	-	-

I would like to have more information on this project.

NAME: _____

ADDRESS: _____

THANK YOU FOR YOUR INTEREST, TIME AND EFFORT.

(Please return this completed form to the host in your session.)

bc - L. Bazzetta
John Michel
Bob Myers
Paul Mihalik
Bill Turner
Richard Morganti
Chris Crowder

Tucson Public Schools
Research Department

April 30, 1974

Memo to Dr. Thomas Lee

From Barbara Prentice

I wish to inform you of the very excellent section meeting that the Tucson Model Cities Exemplary Vocational Education Program presented in Phoenix last Friday, April 26.

The presenters employed a very effective multimedia format and I felt the information was presented so well that this group should be asked to re-do their presentation for those of us within the district.

Mr. Bazzeta introduced the group and gave some background information. John Michel presented part of the format. Bob Myers, Paul Mihalik, Bill Turner, Richard Morganti, as well as Chris Crowder were participants.

You would have been proud of the whole group and the overview that they gave of this project within the district.

Yours very truly,

Barbara S. Prentice

cc - Allan Hawthorne
Florence Reynolds

APPENDIX F

Evaluation - Skill Training

Extended Day Program

EVALUATION

NEIGHBORHOOD YOUTH CORPS

EXTENDED DAY, WELDING

NAME	Flat Pad*	Flat Butt*	Flat Fillet*	Flat Lap *	Flat Corners*	Hor. Pad	Hor. Butt	Hor. Fillet	Hor. Lap	Hor. Corner	Vertical Pads	Vertical Butt	Vertical Fillet	Vert. Lap	Vert. Corner	Overhead Pad	Overhead Butt	Overhead Fillet	Overhead Lap	Overhead Corner	Automatic Cutting Torch	1 Hand Torch Cutting
Bernal, C.	E		D																			
Brantley, P.	E	E		D																		
Duchene, M.	E	E	E	E	E	E	E	E	E	E											E	E
Gameyos, P.	E	E	E	E	E	E	E	E	E	E												E
Hale, M.	E		D																			
Jacques, J.	E	E	E																			E
Lusinski, G.	E	E	E	E	E	E	E	E	E	E	E	E	E	E							E	E
Navarro, M.	E	E	E	E	E	E	E	E	E	E											E	E
Ramirez, J.	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E	E
Randell, S.	D																					
Wilson, R.	E	E	E	E	E	E															E	

E = Entry Level or Exit Skill Acquired.

* = Required Entry Level Skills for most Arc Welding Jobs.

STUDENT BEHAVIOR CHECKLIST

STUDENT NAMES	Knows Keyboard Fingering	Types 20 WPM, 1 error per minute	Types 30 WPM, 1 Error per minute	Types 40 WPM, 1 Error per minute	Types 60 WPM, 1 Error per minute	Can type Carbon Copies	Can Type Stencils and Ditto Masters	Knows Letter Forms	Business Forms	Operates Rotary Calculator	Operates Electronic Cal	Center Copy Vertically	Center Copy Horizontally	Envelopes	Can operate 10-key prop.	Can Operate Cash Register	Do Simple Math Calculation	Answer phone properly	Place local call	Place long-distance call	INDIVIDUAL	TOTAL SKILLS
1. Inez Arellano														✓	✓	✓	✓	✓	✓	✓		8
2. Mary Lou Duchene	✓			42/4		✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓		17
3. Eufemia Flores	✓			46/2				✓	✓	✓		✓	✓		✓		✓	✓	✓	✓		13
4. Leticia Gallegos	✓		38/4			✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		16
5. Dolores Lopez	✓		31/3							✓					✓		✓	✓	✓	✓		9
6. Gail Moore	✓			46/3		✓		✓	✓		✓	✓	✓	✓			✓	✓	✓	✓		14
7. Karen Robertson	✓			46/4		✓		✓	✓		✓	✓	✓	✓	✓		✓	✓	✓			14
8. Mary Lou Romero	✓		39/0			✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		17
9. Virginia Samorano	✓		38/2			✓		✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓		16
10. Rosemary Saravot	✓			45/3		✓		✓	✓	✓		✓	✓	✓	✓		✓	✓	✓			13
11. Kay Bergquist	✓				68/3	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓					13
12. Linda Gardner	✓	20/3				✓		✓									✓					4
13. Juanita Morena	✓			54/3		✓		✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓		15
14. Terry Woods	✓		38/3			✓		✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓		15
15. Susan Cocio	✓		32/3			✓																3
TOTAL NUMBER/SKILLS	15	1	6	5	1	1	12	3	12	11	9	11	11	14	12	2	12	11				125
																					AVERAGE	

Evaluation of TPS Career Education Program

Appendix A (1)

Elementary School

School _____ Grade _____

1. Please rate your class as a whole in terms of how well they cooperate in career projects and activities. Check the appropriate square.

	All the time	Most of the time	About half the time	Seldom	Never
a. There is fighting when students work in pairs or groups.				4.00*	
b. Students plan projects and activities carefully when working in pairs or groups.			2.79		
c. Students divide work fairly evenly among themselves in pairs or groups.		2.34			
d. In general, students cooperate well when working in pairs.		1.86			
e. In general, students cooperate well when working in groups.		2.11			

Total Average 2.22

2. Please evaluate "hands-on" kit activities, in terms of student participation.

a. All students take some part in these activities.		1.79			
b. Students are enthusiastic about these activities.		1.62			
c. Students verbalize information gained in hands-on experiences.		2.03			
d. Students actively seek more information on a career after a hands-on experience with it.			2.93		

Total Average 2.09

3. Comments: See summary on the following page.

Summary:

Questions 1 and 2 - In general, the total average for question 1 (parts a-e) shows that teachers believe students cooperate "most of the time" in career projects. According to the total average for question 2, teachers also believe that students participate "most of the time" in "hands-on" career kit activities. The students were rated lower by teachers in "planning" cooperative projects and "activity seeking" information when using kit activities.

The pattern of response by the 29 teachers toward the students' cooperation and participation in career activities is almost identical to those made by seven teachers in last year's career program. Student participation and enthusiasm rated high in both evaluations.

Question 3 - Comments: Comments were made by 14 out of 29 participants and seemed to confirm the "forced-response" answers. Seven of the remarks indicated that students enjoyed the career kits and activities and were highly motivated toward new experiences. A similar comment by four respondents stated that children were able to relate concrete objects in the kits to what they were reading and learning in the classroom. Four teachers remarked that they would like to have used more of the career kits and in some cases, for longer periods of time.

APPENDIX G

Third Party Final Evaluation

SOUTHWEST RESEARCH ASSOCIATES
P.O. Box 4092
Albuquerque, New Mexico 87106
(505) 266-5781

SITE VISIT REPORT

Tucson Model Cities

Exemplary Vocational Education Program

April 9 and 10, 1974

On April 9th and 10th, Max Luft and Janice Lujan of Southwest Research Associates (SWRA) visited the career education project in an attempt to partially fulfill the requirements of the stated contract. The first part of the session on Tuesday was spent reviewing existing contracts to find out what still needs to be done in the area of post-testing procedures. Each instrument to be given was identified with specific target audiences, anticipated dates of test administration, test scoring, and test reporting. It was determined that all testing material would be received by SWRA no later than the 11th of May, and the results would be returned to the project for assistance in their written final report no later than the 22nd of May. The week of May 20 - 24 was established as the time when efforts would be concentrated on the writing of the report for the closing out of the project. The Final Report will be a shared responsibility. Specifically, SWRA will be responsible for the evaluation session which will meet the guidelines as

established in the H.E.W. document 210:10065. It was also decided that conclusions, implications, and recommendations would be written by John Michel as he worked with Sue Ghoziel on interviewing Paul Mihalik, Rich Morganti, Bob Myers, Bill Turner, and Mary Melton. It would be the purpose of their interview to determine the accomplishments of the project. It was felt that goals and objectives of the projects along with evaluation questions could best be gathered from previous documents, and summarized by John Michel. The statement of the problem area, which is the initial part of the body of the Final Report, would focus on the Project Proposal, Interim Evaluation Reports, and Quarterly Reports. Any modification in project goals and aims would be documented through written statements of such modification. It was felt that the project design description could best be gathered from the initial proposal as well as a documented continuation of proposal changes. Finally, the appendix would be constructed by John Michel to supplement the document. It was hoped that the executive summary, which is the first section in the Primary Report, would be offset in a different color and also used as project dissemination materials.

The project is to be commended for the preparations it is making for the Innovation Fair to be held in Phoenix the week of April 29th.

The NYC area was visited and records were reviewed by Max Luft who succeeded in documenting answers to evaluation questions in that area. On April 10th, Janice Lujan met

with John Michel as well as other project staff to finalize the Quality Assurance paper. It is hoped that this will provide the framework for continuation of the proposal should it be desired. Systems of generation of feedback have been designed and the results will hopefully be gathered by the 11th of May. This Final Site Report reflects that the project has made many positive changes and is succeeding in meeting its objectives, goals, and in answering evaluation questions as stated.

Respectfully submitted,

Max Luft

Executive Director
Southwest Research Associates

April 22, 1974

SOUTHWEST RESEARCH ASSOCIATES
P.O. Box 4092
Albuquerque, New Mexico 87106
(505) 266-5781

April 15, 1974

Mr. John Michel
Model Cities Vocational Project
Tuscon Public Schools
P. O. Box 4040
Tuscon, Arizona

Dear John:

Thank you for the time you spent with me on Wednesday, April 10th.

The Welding Skills Development Checklist is attached, along with the Dropout section of the Quality Assurance Report. If either you or Chris have any comments or questions, please be sure and let me know.

Could you also please check with Bill Welch and make sure I didn't misinterpret anything?

I'm sorry that we missed Carol Spencer, as I was looking forward to meeting with her. We were at Tucson High by a little after 5:00, but practically nobody else was.

Thank you again - I was really impressed with what's happening in the welding program.

Sincerely yours,

Janice

Janice Lujan
Director, Quality Assurance

Enclosures

cc: Bill Welch
Chris Crowder

JL:jp

SOUTHWEST RESEARCH ASSOCIATES
P.O. Box 4092
Albuquerque, New Mexico 87106
(505) 266-5781

April 22, 1974

Mr. John Michel
Coordinator
Tucson Model Cities Career Education Project
Tucson, Arizona 85717

Dear John:

It was certainly a pleasure for Jan and I to have an opportunity to continue our evaluation procedures with your project. We are looking forward to the successful completion of our agreement as indicated.

Enclosed in this letter are a copy of the Site Visit Report and a final copy of the revised Quality Assurance Model as per our contract.

Sincerely yours,

Max Luft
Executive Director

Enclosures

ML:jp

SOUTHWEST RESEARCH ASSOCIATES
P.O. Box 4092
Albuquerque, New Mexico 87106

IMPLEMENTATION OF A QUALITY ASSURANCE MODEL

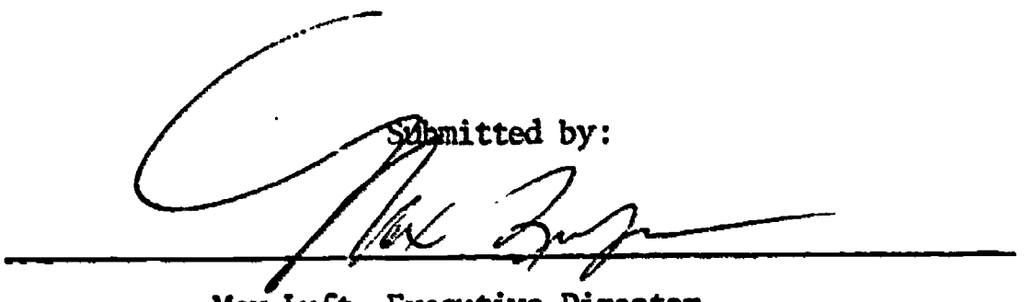
FOR

TUCSON MODEL CITIES EXEMPLARY VOCATIONAL EDUCATION PROGRAM

Submitted to:

Mr. John Michel, Program Supervisor

Submitted by:



Max Luft, Executive Director
SOUTHWEST RESEARCH ASSOCIATES

April 22, 1974

TABLE OF CONTENTS

IMPLEMENTATION OF A QUALITY ASSURANCE MODEL

FOR

TUCSON MODEL CITIES EXEMPLARY VOCATIONAL EDUCATION PROGRAM

Purpose:

The Tucson Model Cities Exemplary Vocational Education Program (Career Education Program) contracted with Southwest Research Associates (SWRA) for an external evaluation. SWRA Contract number 74-66 Item 3 states:

> "In order for the LEA to implement Career Education into the curriculum, an efficient economical method of evaluation which would insure continued high standards is needed."

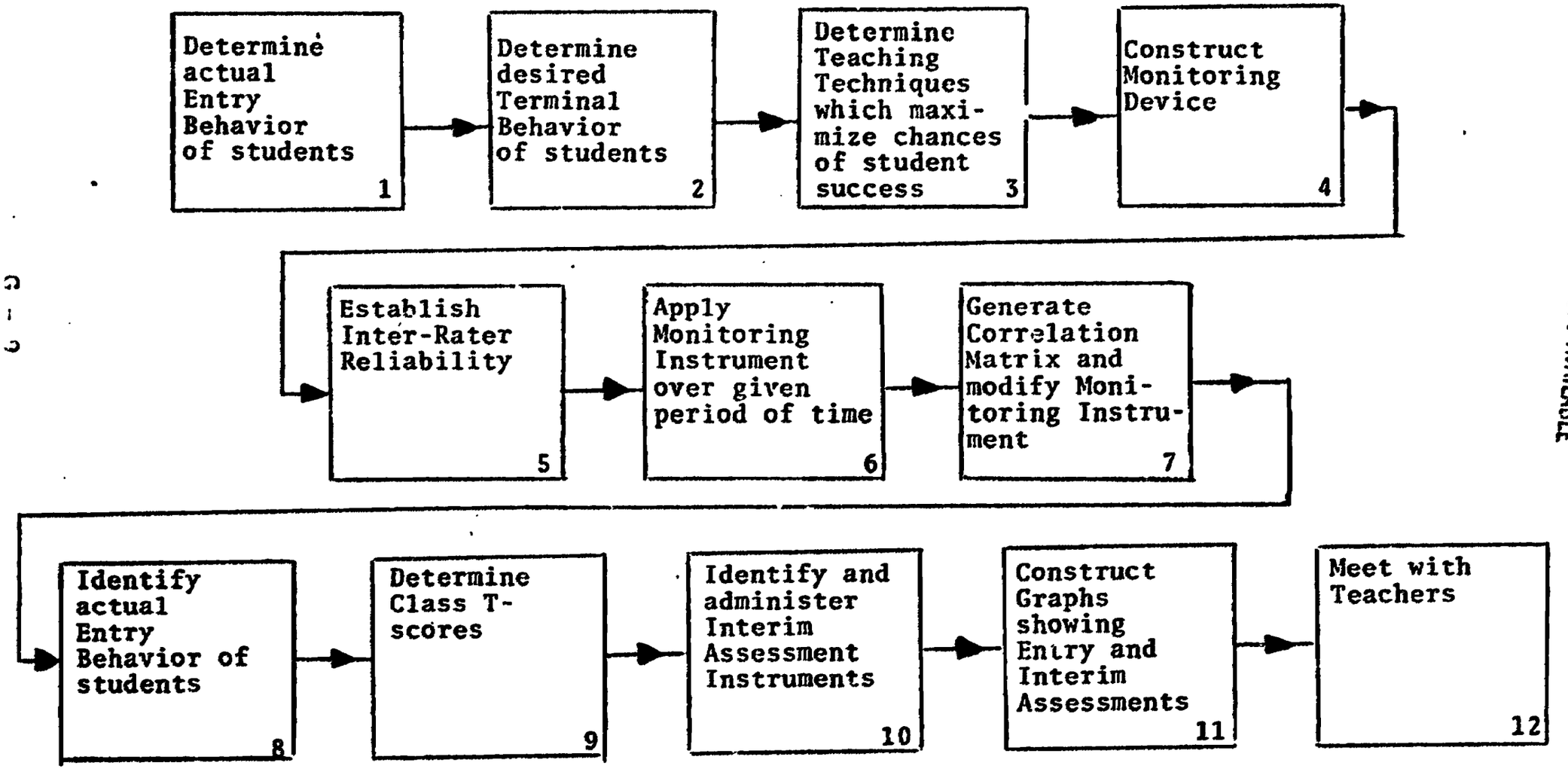
It was decided that the Quality Assurance Model for Process Evaluation[1] would be adapted and the adaptations field tested to provide for this need.

The Quality Assurance Model is designed to be implemented in two phases. The flow chart on page 2 shows the twelve steps necessary in implementing both phases of the Quality Assurance Model; steps 1-7 constitute Phase I. Phase II (steps 8-12) can only be implemented with Phase I, while Phase I may stand alone. Because of the difficulty of implementing the entire model, it was decided that different sections of Phase I would be adapted and implemented at different grade levels throughout the project. Phase II could be implemented in the future, but is more time consuming, administratively difficult, and expensive because of the wide variety of required student instruments. The time schedule also makes implementation of Phase II difficult at any level except the junior high level.

---

[1] Luft, M., Lujan, J., Bemis, K., "The Quality Assurance Model for Process Evaluation," in Evaluating Educational Programs and Products, Educational Technology Publications, Englewood Cliffs, N.J., 1974 (Publication pending).

FLOW CHART FOR IMPLEMENTING THE QUALITY ASSURANCE MODEL



It is the purpose of this report to outline possible Quality Assurance activities to assist in the quality implementation of Career Education as developed by the Tucson Model Cities Program.

Program Summary:

The Tucson Model Cities Exemplary Vocational Educational Program has four "types" of staff: Administrative, Classroom, Support and Resource. In implementing this Career Education Model in another district or situation, these designations may change. The role of the resource person is extremely important to the quality implementation of the program. Although varying at different grade levels, the responsibilities of the resource person will become clearer within the discussion of each level of the program.

In order to meet the changing needs of the students in elementary, junior high and high school, different career education aspects have been implemented at each level.

The basis for the Career Education Program at the elementary level is the seventeen kits which are available on a pre-scheduled basis to interested teachers. Each kit contains information and materials related to a "cluster" of related fields of employment. Field trips and resource speakers are also available to supplement the kits.

At the junior high level, a published curriculum (World of Work[1]) is implemented, and is supplemented by field trips, resource speakers and project developed video tapes.

The senior high program has three components: (1) the Job Placement Center which attempts to place interested, potential dropout students in various jobs, (2) the Career Information Center which tries to assist students in identifying possible career areas, and (3) a Dropout Program which works with previous dropouts in providing skills training.

---

1 Lux, Donald G., Ray, Willis E. (Co-Directors) and Hauenstein, A. Dean (Assist. Director), Industrial Arts Curriculum Project, McKnight & McKnight Publishing Company, Illinois, 1970.

Implementation of the Model:

The Quality Assurance Model will be discussed as it has been adapted and applied to each level.

In order to assure the quality of the Elementary School Program in the elementary grades, it is essential that the Career Education kits are being used as specified in the instructor's guide.

The first method for measuring the use made of the kits is a pupil assessment. A short quiz should be developed, for each kit, possibly varying colors of paper for each assessment measure. The teachers could then be instructed to administer this test after the completion of each kit.

This concept has been pilot tested for three kits with written tests, however, a number of testing formats might be used. These could include oral interviews or written multiple choice tests. An alternative would be the use of a story format, wherein cartoon characters present a problem and the pupil taking the test is asked to solve it. Depending on the philosophy of the individual teacher, the test could be administered individually, in small groups, in committees, or in large groups. The possibility also exists that the story and characters could be used as an introduction to a kit on a pre-test basis.

Southwest Research Associates has field-tested a group of characters and has found them to be popular with elementary school students. Examples of the characters and of three possible test formats can be found in Appendix A.

A second method for measuring the use made of the Career Education kits is feedback from teachers while they are using the kit materials. In addition to offering a measure of kit use, the cards can help identify potential "trouble spots" which can then be "treated". The feedback

card shown below is currently being returned weekly by elementary teachers. Results will be reported in the Final Evaluation Report.

CAREER EDUCATION RETURN CARD
FOR TEACHER FEEDBACK

NAME OF KIT:_____ WEEK OF:_____

TEACHER:_____ SCHOOL:_____

PLEASE ANSWER THE FOLLOWING QUESTIONS. IF QUESTIONS ARE NOT APPLICABLE, PLEASE WRITE "NA". IF YOU WOULD LIKE TO EXPAND ON ANYTHING, USE THE BACK OF THIS CARD. IF YOU HAVE ANY QUESTIONS, CALL YOUR RESOURCE PERSON.

WHICH DAYS OF THIS WEEK DID YOU USE THE KIT?
MON. TUE. WED. THR. FRI. NONE
HOW MANY STUDENTS WERE INVOLVED DURING THE WEEK?_____
HOW MANY HOURS DID YOU USE THIS KIT THIS WEEK?_____

WILL YOU USE THIS KIT IF IT'S AVAILABLE TO YOU NEXT YEAR?
YES NO

WERE THERE MAIN IDEAS PRESENTED IN THE KIT FOR YOUR USE? YES NO
WERE YOU ABLE TO USE ANY OF THEM? YES NO

DID YOU USE A FIELD TRIP TO SUPPLEMENT THIS KIT? YES NO
DID YOU USE A RESOURCE SPEAKER TO SUPPLEMENT THIS KIT? YES NO

HOW DID YOUR STUDENTS REACT TO THIS KIT?
VERY WELL SO-SO POORLY
WHAT IS YOUR OVER-ALL REACTION TO THIS KIT?
GREAT SO-SO POOR

DID YOU NEED ANY ADDITIONAL INFORMATION TO USE THE KIT AS YOU PLANNED? YES NO

WHAT ADDITIONAL INFORMATION OR SUPPLIES DO YOU NEED FROM THE RESOURCE PERSON?

SWRA 74-66-2-74

An alternate method of measuring the use of the Career Education kits and one which more closely relates to the Quality Assurance Model as referenced on page one is the observation of teacher behavior. This can be accomplished several different ways; an observation instrument is the usual method. Ideally, this instrument is constructed early in the program, during a meeting with teachers and other program personnel, and measures occurances of those behaviors which seem to be most effective in implementing a given program. Since the teachers do have input to the observation instrument, and since the completed instrument must be discussed with the teacher after observation sessions, and a copy is left with the teacher, the observations become non-threatening. There are many implications to this procedure, one of the most notable being the involvement of the classroom teacher in the implementation and evaluation activities.

The quality initiation of the Junior High School Career Education Program in the junior high grades depends on the quality use of three factors:

1. World of Work (Worlds of Construction and Manufacturing);
2. field trips; and
3. video-tapes.

Checklists and observation schedules could easily be developed which would measure how well and how often recommended or prescribed teacher activities and behaviors are being used. At first, these behaviors could be hypothesized; later, after sufficient data are gathered, revised observation instruments with established validity can be used.

An added advantage to the use of observation schedules such as the ones outlined is that they can be used by the teachers as a lesson planning device. The teacher can easily see areas which he may want to expand at a later time.

Although the observation instruments found on the following pages were not pilot-tested in the Tucson project, the Field Trip Checklist is based on a project memo (see Appendix B). Also, the World of Work Classroom Observation Instrument is based on the procedures found in the Laboratory Manual.

TUCSON MODEL CITIES
CAREER EDUCATION PROGRAM

FIELD TRIP CHECKLIST

Check as each behavior occurs.

TEACHER: _____ SITE: _____ OBSERVER: _____
SCHOOL: _____ DATE: _____ TOTAL TIME SPENT: _____

PREPARATION

OBSERVER TIME: ____

PLAN:
Teacher announces:
____ where
____ when
____ why

STUDENT INTEREST:
Teacher:
____ explains what pupils should learn or notice
____ answers questions
Students ask questions:
(tally) _____

OBJECTIVE:
Teacher:
____ has objective
____ gives an assignment
____ checks assignment

FIELD TRIP

OBSERVER TIME: ____

REVIEW:
Teacher:
____ relates trip to classwork
____ explains what pupils should learn or notice

ASSIGNMENT:
Teacher:
____ checks assignment
____ gives assignment

Tally student questions asked and answered (by teacher): _____

FOLLOW-UP

OBSERVER TIME: ____

REVIEW:
Teacher:
____ relates trip to classwork
____ explains what pupils should learn or notice
____ discusses with pupils

ACTION:
Teacher:
____ gives assignment
____ collects assignment

TUCSON MODEL CITIES
CAREER EDUCATION PROGRAM

WORLD OF WORK CHECKLIST
Check as each behavior occurs.

TEACHER:_____ OBSERVER:_____ UNIT:_____

SCHOOL:_____ DATE:_____ ACTIVITY:_____

_____ Teacher explains purpose of activity.

_____ Teacher relates to student reading or activity.

_____ Teacher explains equipment and supplies.

_____ Teacher demonstrates (optional).

_____ Teacher references directions.

_____ Teacher gives assignment.

_____ Teacher mentions safety factors.

_____ Teacher monitors work.

_____ Teacher explains clean-up.

_____ Teacher monitors clean-up activities.

COMMENTS:

TUCSON MODEL CITIES
CAREER EDUCATION PROGRAM

VIDEO-TAPE CHECKLIST
Check as each behavior occurs.

TEACHER:_____ OBSERVER:_____ TITLE:_____

SCHOOL:_____ DATE:_____

INTRODUCTION

Teacher:
____ gives title or subject
____ relates to other information
____ tells pupils what to learn or notice
____ asks for questions
____ answers questions

FOLLOW-UP

Teacher:
____ asks for questions
____ answers questions
____ relates to other information
____ gives assignment (optional)
    ____ written or reading
    ____ practical
    ____ discussion

Tally as behavior occurs:

Teacher relates information to individual(s):_____

Besides teacher behavior, student behavior must also be measured at the junior high level. A criterion referenced test to be used on a pre-post test basis has been developed by the project staff, including input from both teachers, the internal evaluator, and the resource person. This test has been pilot tested and is appendiced in Appendix C.

It should be noted that the full Quality Assurance Model of Process Evaluation could be most easily applied at the junior high level because of the use of a structured curriculum. Interim assessment measures would need to be identified for periodic administration, however.

At the Senior High School level each of the three aspects of the project (Job Placement Center, the Career Information Center and the Drop-out Program) can include different activities to assure quality implementation. Public relations, both internally and externally, is another important aspect of the Program which must be considered at this level.

The Job Placement aspect of the program is difficult to quantify, as so much depends on the personalities, instincts and experiences of the people involved in student counseling and placement. Quality implementation depends heavily on counseling. Specific areas of needed counseling include personal and employment related for students, follow-up with students after they are placed in jobs, and with employers regarding placement of students in employment situations. Variables in student motivation and background are important too, as they are in any counseling situation. After a student has been placed in a position, close personal contact must be maintained between the counselor and the

student; follow-up visits must be made regularly and by the same counselor whenever possible.

The following factors are hypothesized as correlates of success:

1. Students' attitudes toward their work must be identified.
2. Students' skills in particular job areas must be identified.
3. Jobs should be found for students, rather than jobs being found, and then students being sought to fill them.
4. The same student should be visited by the same counselor each time on job visits.
5. Two or three jobs should be visited by the counselor each week, and four to eight supervisors' reports should be collected on each student throughout the year.

In an effort to quantify these factors into a group of recommended behaviors, a filing system was developed. File I contains students' pre-employment files, File II contains students' employment files and File III contains "dead files". The use of this filing system and the appropriate instruments, behaviors, etc., along with "good" counseling techniques, should help assure the quality installation of the Job Placement Center. This system is currently being pilot-tested in the Tucson Program, and seems to be successful. The following two pages show a cover sheet for a student folder in each of the first two files. As contact is broken with a student, his file is moved to the dead file. For follow-up purposes, files should be reviewed on a "regular" basis - possibly quarterly. In the "dead file", all students who are "found" can have a short report written, dated and added to the file. Longitudinal data thus becomes available. Comments on all cover sheets should be brief, and documentation should appear in the folder itself.

In addition to the student files, an appointment book of contracts made by Job Placement Center personnel should be kept and summarized monthly. This will allow for the further identification of "trends" or factors leading to success.

CAREER EDUCATION PROGRAM - JOB PLACEMENT

PRE-EMPLOYMENT

Student Name_____ Counselor_____

DATE	NUMBER OR INITIAL IF FURTHER INFORMATION IN FILE	ACTIVITY OR DOCUMENT
		Application Initiated by: Student____ Parent____ Teacher____ Other____
		Initial Impression: Positive____ Negative____ Comments in File____ So-so____
_____ Given _____ _____ Reviewed with Student_____ _____ Action Necessary_____ _____ Action Taken_____ _____ Filed _____		Attitude Inventory Title:_____
_____ Given _____ _____ Reviewed with Student_____ _____ Filed _____		Aptitude Test(s) Title(s):_____
		Employment Contacts Made Employer(s):
		Interviews Completed Employer(s):
_____ Action Necessary_____ _____ Action Taken _____		Reason for Refusal
_____ Planned _____ _____ Made_____ _____ Planned_____ _____ Made_____		Home Visits
		Phone Calls from Parents

Comments:

Student Name_____ Counselor_____

EMPLOYMENT

Student Name: _____ Counselor: _____

Employer*: _____

Direct Supervisor: _____ Phone: _____

Job Visits (Date and Initial):

1._____ 2._____ 3._____ 4._____ 5._____ 6._____ 7._____ 8._____ 9._____ 10._____

Comments (Report in File):

1. Positive___ So-so___ Negative___
2. Positive___ So-so___ Negative___
3. Positive___ So-so___ Negative___
4. Positive___ So-so___ Negative___
5. Positive___ So-so___ Negative___
6. Positive___ So-so___ Negative___
7. Positive___ So-so___ Negative___
8. Positive___ So-so___ Negative___
9. Positive___ So-so___ Negative___
10. Positive___ So-so___ Negative___

Supervisor's Reports

1. Date:_____ Date Reviewed with Student:_____ Action Needed: Yes No
   Action Taken:
2. Date:_____ Date Reviewed with Student:_____ Action Needed: Yes No
   Action Taken:
3. Date:_____ Date Reviewed with Student:_____ Action Needed: Yes No
   Action Taken:
4. Date:_____ Date Reviewed with Student:_____ Action Needed: Yes No
   Action Taken:
5. Date:_____ Date Reviewed with Student:_____ Action Needed: Yes No
   Action Taken:
6. Date:_____ Date Reviewed with Student:_____ Action Needed: Yes No
   Action Taken:
7. Date:_____ Date Reviewed with Student:_____ Action Needed: Yes No
   Action Taken:
8. Date:_____ Date Reviewed with Student:_____ Action Needed: Yes No
   Action Taken:

*ew file with each change

Since the goals of the Career Information Center are different than those of the Job Placement Center, different success factors leading to the quality implementation of the program can be identified. The first of these factors are those leading to the successful *operation* of the Center, and are found on page 17 . Other success factors include behaviors practiced by both classroom teachers at the senior high level and behaviors used by personnel in the Career Information Center. In order to further implement the Quality Assurance Model, observation schedules should be developed as described previously on page 7.

In addition to teacher behaviors, student success must also be measured. A pre-post test format has been design-tested and pilot-tested in the Tucson project. Although revisions are still being made in the test to assure validity and reliability, this instrument is available.

TUCSON MODEL CITIES
CAREER EDUCATION PROGRAM

Factors Leading to Successful Operation of the Career Information Center

1. Files should be color coded, and one person should do ALL re-filing.

2. The person coordinating the Center must establish a comfortable relationship with the classroom teachers. Specifically, some teachers would rather their classes were not interrupted, while others don't mind as much. In addition, he must "be very explicit to teachers - pre and post test".

3. In arranging for resource speakers, publicize the speaker for two weeks before the scheduled time, remind the speaker, plan for the unexpected, survey students to ascertain which speakers are most interesting, and which careers students are most interested in discussing.

4. In using films relative to the Career Information Center, publish a film list each semester, use films related to the overall program goals, find out which films students like best, explain the purpose of the film before showing it, and review the film with the students after they have seen it.

5. In planning field trips, remind the business or person to be visited of the exact time and date, plan for the unexpected in terms of scheduling and survey students to ascertain most productive and enjoyable field trips.

6. In planning the Career Information Center, buy materials which relate best to overall goals, and buy easy to use materials at the right reading level(s). Some hard bound books may not be used by the students while pamphlets and paperback books may be more popular. Arrange the Center as simply as possible and arrange scheduling to include those students who transfer into and from English classes.

7. In publicizing the Center to other school personnel, they should know as much about the Center and how to use it and help the students use it as soon as possible in the school year.

Dropout Program:

The goals of the Drop-Out Program include giving high school drop-outs a chance to learn marketable skills. Although the nursing skill development unit has been discontinued, the welding unit and the office machines unit are being well implemented.

Several factors are included in the quality installation of the Drop-Out Program units including identification of:

a. student entry level,

b. student need(s),

c. skills to meet,

d. projected time schedule,

e. actual time schedule.

The Skills Development Checklists on pages 18a and 18b, if implemented, will assist in assuring program quality through documented identification of those factors listed above. These are developed by the student and the teacher, maintained by the skills development teacher, and monitored by the resource person. Continual progress may be oberved and documented as checklists are easily updated.

Because of the small teacher/student ratio, and the need for individualized instruction, it is recommended a teacher observation schedule or monitoring form not be developed, although use might be made of a self checklist.

WELDING

Although The Skills Development Checklist assumes little if any prior knowldge of welding technique, and although a student may enter at any level, minimum entry level for the Drop-Out program is a knowledge of aceylene welding, use of a hand cutting torch and successful completion of:

a. a flat pad,

b. a flat butt,

c. a flat fillet,

d. a flat lap,

e. a flat corner.

Each student progresses at his own rate, learning a certain technique, then perfecting that technique. The use of different machinery and different materials then adds to the students' "worth" in the labor market.

A specific "successful exit" behavior cannot be specified for the welding component. Each student's needs are different, so "successful exit" behavior depends on the specific situation.

WELDING SKILLS DEVELOPMENT CHECKLIST

STUDENT NAME	Flat pad *	Flat butt *	Flat fillet*	Flat lap *	Flat corner *	Hor. pad	Hor. butt	Hor. fillet	Hor. lap	Hor. corner	Vert. pad	Vert. butt	Vert. fillet	Vert. lap	Vert. corner	Overhead pad	Overhead butt w/backup strip	Overhead fillet	Overhead lap	Overhead corner	Pipe butt	Pipe elbow	Pipe 45°	Pipe tee	S. soldering and cop. pipe	Tig pad	Tig butt	Tig fillet	Tig corner	Mig 200 Amps--All positions	Mig 300 Amps--All positions and aluminum	Mig 500 Amps--All positions and core wire	Mech Tig Unit	ARCAIR	Nickel ARC	Special Welding processes	Brazing	Vert. up with movement	Hand cutting torch *	Mech cutting torch	Personal project **	VICA*** Project **

* Required entry level skills

** As it occurs tasks are used as learning experiences

*** Vocational Industrial Clubs of America

SUMMARY AND IMPLICATIONS

There are several implications and outcomes which might result from the installation of the Quality Assurance Model of Process Evaluation. For example, the development of classroom observation instruments leads to the involvement of the teacher in the development and evaluation process. They may be developed at any level, and may be correlated with student success to ascertain which teacher behaviors are actually related to student success. After the latter has been established, the teacher training aspects are obvious. In addition, self-observation of video-tapes by teachers and counselors can easily be added, especially at the junior high and senior high levels. Field trip and video-tape checklists are also generalizable to other grade levels.

One problem found in all high schools is that of high school drop outs being unemployable. If the Skills Development curricula are employed, and possibly expanded, the implications are obvious: students who can be enrolled can be taught a marketable skill regardless of age or academic standing, or individual need.

In conclusion, the Tucson Model Cities Exemplary Vocational Education Program has implemented and pilot-tested a Quality Assurance system related to their Career Education Program. They have also given insights into other techniques which might prove helpful in the quality implementation of this program in other sites or situations.

Any other district or agency attempting this program and attempting to maximize student success through implementation techniques has a good chance of success because of the pilot-testing completed by the Tucson Program.

APPENDIX A - Sample Test

APPENDIX B - Tucson Public Schools Memo

APPENDIX C - Junior High Test

APPENDIX D - Senior High Career Information Center Test

Lester and Luisa

Pictures and Problems

PURPOSE:

The purpose of any test is, of course, to see what someone has learned about a given subject. The purpose of giving short quizes after a teacher has used each Career Education kit is to determine the depth of understanding the children have about a given topic, and the careers related to it.

One possibility is the administration of a pretest and a post-test, while the other is the administration of two tests, one covered by the kit and one not covered by the kit. Because of the flexibility of the kits, the questions or situations on the test must also be generalizable and hopefully reflect affective and cognitive notions.

INTERPRETATION:

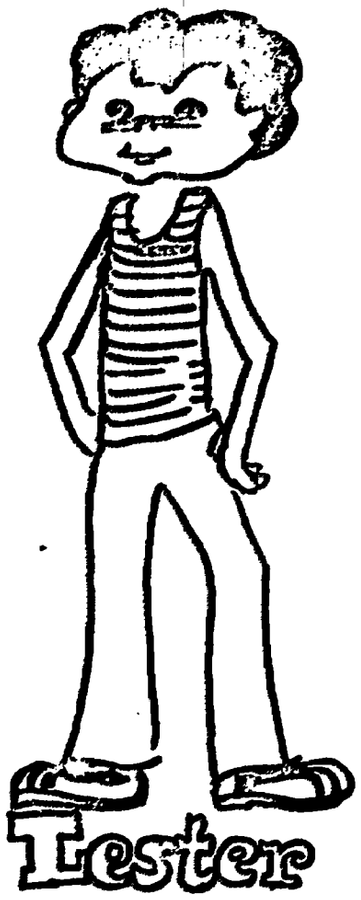
Interpretation of any test is difficult, as everyone may have been sick that day or the teacher may have successfully taught a completely different concept.

The administration and scoring of periodic "content tests" during the course of the program could provide some valuable information however. Are the children learning about careers? Are some methods and techniques more successful in teaching career awareness than others? Test should be interpreted to see if individual classes are meeting goals, established by the teacher or the programs; and also to determine which kits most successfully teach about the number of careers that are available.

METHOD:

Although either a written or oral test could be administered, there are ways to make tests more interesting to both the students and the teachers. One is to use cartoon characters to present a problem situation which the students must then solve. The children could be tested orally, individually, in small groups, in large groups, or one test to a committee, depending on the individual teacher's philosophy and information needs. The characters on the next page have been developed and pilot-tested and are popular with children. Following the cartoons are scripts for the type of test questions which could relate to the use of the Career Education kits.

This is Luisa, Lester's little sister. She is in the 3rd grade and likes school.



This is Lester. He is in the 6th grade. He tries very hard in school but he doesn't like it very much. He does like his teacher, and that makes it easier.

This is Butch, and he is Lester's best friend. He hates school but he goes anyway.

This is Wilfred. He is very smart in school and gets all A's. He is Lester's next best friend after Butch.

GRADES K-3: I'm going to tell you (help you read) some stories about Luisa and her brother Lester. After I read the story then you can help Luisa and the other kids solve their problem (answer their question).

GRADES 4-6: We're going to read some stories about Lester and his friends. After the story you can decide what you would do to solve their problem.

GEOLOGY

Situation I

Lester: Boy! Did we have a neat class today! It was all about rocks and dirt and stuff.

Wilfred: That was Geology.

Luisa: Hi! Can I walk home with you? What's Geololoogy?

Lester: Dummy, you can't even say it. It's ... I don't know either what it is exactly.

Lester: Do you? (pointing out)

Situation II

Butch: So you know about rocks and dirt and stuff, so what? What good is that? What good is geology? I's rather eat or play football (to Lester), rocks are best to throw at cans.

Wilfred: My father works with geology and geologists and he's important and it's neat because they pay him a lot of money.

Butch: What does he do? What jobs could I have if I like geology and rocks?

PHOTO-JOURNALISM

Butch: Hey, you guys, look over there. That guy has a camera and he's taking pictures. Who do you suppose he is? What do you think he does?

Wilfred: He could be lots of things, or have lots of jobs.

Lester: Like what? What could he be doing?

WEATHER KIT

Situation I

Louisa: It would be fun to be a weatherlady. I like to look at the clouds and watch the rainbows and see the sun.

Wilfred: So what, that's a dumb thing to do.

Luisa: You just wait until I grow up! I'll be able to have lots of jobs with weather! Like I could ...

Situation II

Butch: Hey, Lester, we're going on a picnic with hot dogs and potato salad and cokes and ice cream if it doesn't rain, and my mom says you can come if it doesn't rain and your mom says yes.

Lester: My mom won't care, but how can we know if it's going to rain?

Butch: How does the weatherman know what the weather will be like?

TUCSON PUBLIC SCHOOLS
ROBERT D. MORROW EDUCATION CENTER
P.O. BOX 4040
1010 EAST TENTH STREET
TUCSON, ARIZONA 85717

TO: Teachers, K - 12

SUBJECT: Guidelines for Field Trips

A limited number of field trips are available to the schools participating in the Exemplary Program. Listed below are procedures which have been developed in cooperation with the project supervisor and his staff:

1. Teacher - Pupil Planning:

   a. Plan type of trip.
   b. Gain students' interest in the trip.
   c. Develop an objective for the trip:

      1. Development of an awareness of different workers.
      2. Observations of working conditions.
      3. Development of an awareness of the interdependence of workers.

2. Pupil Preparation:

   a. Have students list:

      1. Working conditions.
      2. Duties of workers.
      3. Appropriate clothes for type of job.
      4. Number of workers.
      5. Safety procedures to take.

   b. Have students find out if workers enjoy the kind of work they are doing.

3. Follow - up:

   a. Did the students enjoy the trip?
   b. Would you recommend the trip for others? Why or why not?
   c. Were all questions answered?
   d. Did students observe any type of work they would enjoy doing?
   e. What did the students learn on this trip that had not been learned in the classroom?

SOUTHWEST RESEARCH ASSOCIATES
P.O. Box 4092
Albuquerque, New Mexico 87106
266-5781

Mr. John Michel
Career Education Program
Tucson Public Schools
Tucson, AZ 85717

Dear John:

I received the Feedback Cards for the elementary level Career Education Kits, and am quite pleased with the results.

With reference to the implementation of the Quality Assurance Model with the elementary program, the Feedback Cards are an excellent tool. I would suggest that any group planning to utilize the QA Model with the Kits use this system.

Since the pilot-test of the cards was not complete when the Quality Assurance Report was written, they are mentioned only briefly. It might be a good idea to append this letter to the final Quality Assurance Report.

Besides validating the concept of the Feedback Cards, the pilot-test also provided some valuable information. A short summary is enclosed for use in the Final Report.

Sincerely yours,

Janice Lujan
Director, Quality Assurance

Dropout Program:

The goals of the Drop-Out Program include giving high school drop-outs a chance to learn marketable skills. Although the nursing skill development unit has been discontinued, the welding unit and the office machines unit are being well implemented.

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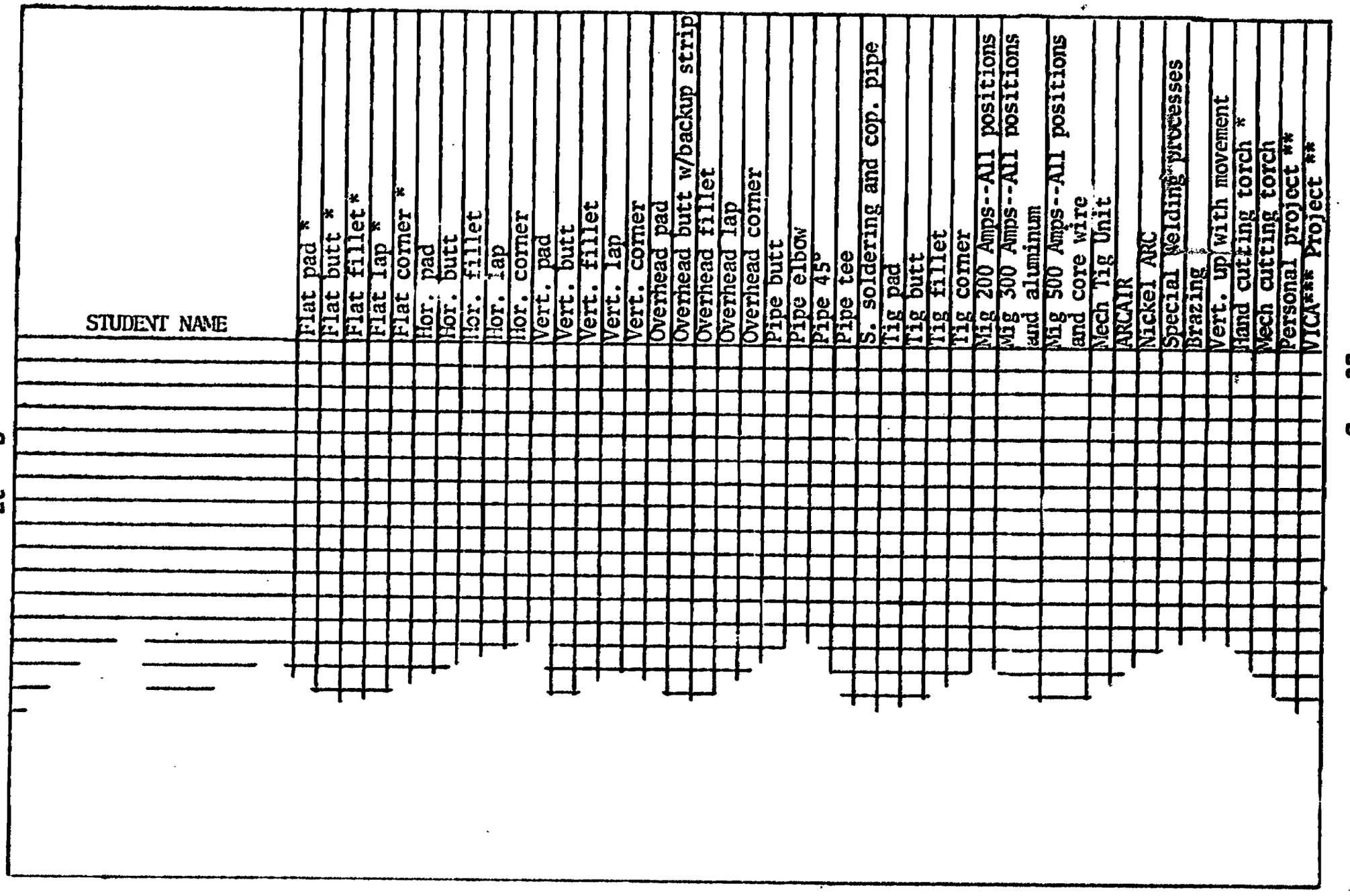
WELDING SKILLS DEVELOPMENT CHECKLIST

BEST COPY AVAILABLE



G - 37

G - 37

* Required entry level skills
** As it occurs tasks are used as learning experiences
*** Vocational Industrial Clubs of America

SOUTHWEST RESEARCH ASSOCIATES
P.O. Box 4092
Albuquerque, New Mexico 87106
(505) 266-5781

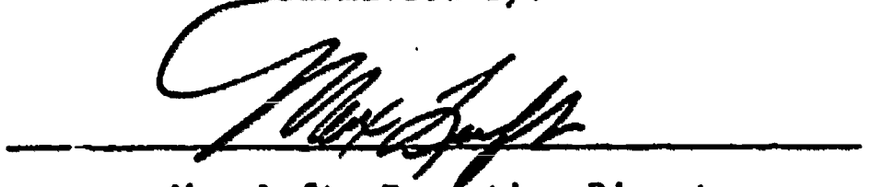
FINAL THIRD PARTY EVALUATION REPORT

Submitted to:

Mr. John Michel,
Coordinator

Tucson Model Cities Career
Education Project

Submitted by:



Max Luft, Executive Director
SOUTHWEST RESEARCH ASSOCIATES

June 6, 1974

a consortium for educational advancement

TABLE OF CONTENTS

FINAL THIRD PARTY EVALUATION REPORT

INTRODUCTION:

The area of evaluation is a prime concern for any successful project. Efforts of the evaluation team should help the project towards its intended outcomes, as well as provide final documentation as to the success of the project.

For the last two years Southwest Research Associates (SWRA) has been contracted as third party evaluator for the Tucson Model Cities Exemplary Vocational Education Program. Designs have been written, data gathered, site visits made, and report documents generated. During the 1973-74 school year SWRA staff have made site visits on the following days:

October 10, 1973
November 6, 1973
December 11, 12, 1973
January 22, 23, 1974
February 12, 13, 1974
March 5, 6, 1974
April 9, 10, 1974

Reports of each site visit have been made to the project coordinator. These reports included data collected, staff interviewed and observed, and recommendations and conclusions. This final report is then, a summary of the findings on data gathered throughout the year.

This report would not be possible without the cooperation of Chris Crowder of Tucson Public Schools Research Department, and John Michel and his project staff.

One additional emphasis of the evaluation efforts this year, that is not recorded in this report, encompasse the evaluation efforts in providing a feedback system to maintain the quality of the project. This has been accomplished by establishing checklists and fill-out return cards which constantly monitor progress of project participants. The quality assurance effort is summarized in Appendix 1.

II. EVALUATION DESIGN

An evaluation design was submitted September 15, 1973 which outlined the potential efforts of SWRA as third party evaluator. This design included a summary of the program, statement of five key program objectives, conceptual framework, evaluation questions to be answered, activity schedule, data collection and reduction procedures, reporting requirements and procedures, and major assumptions and constraints of the intended design implementation. The final report reflects the findings of the work initiated as outlined in the design document. Of prime interest is the focus on a set of evaluation questions.

An initial set of evaluation questions was constructed at a meeting held October 12, 1972. Of the questions generated from the original matrix, several require further analyses. These include:

A. ELEMENTARY LEVEL

1. Do pupils in the program acquire more information about careers than pupils not in the program?

2. Are pupils learning to work together cooperatively in projects and activities?

3. Do pupils in classes in which teachers attempt to reach goals by using specified objectives and activities make greater gains in career information than do pupils in classes in which techniques for reaching goals are left to the teacher?

4. Are hands-on activities effective in eliciting participation from pupils?

5. Are community resource people being utilized?

B. JUNIOR HIGH LEVEL

1. Do students see a relationship between school and work?

2. Are the World of Construction and the World Manufacturing programs more effective than the regular vocational program?

3. How and why were participating schools selected?

C. SENIOR HIGH SCHOOL LEVEL

1. How much and what kind of vocational counseling is given to students?

2. Are students in the program developing an awareness of vocations?

3. Do students learn skills for making applications and getting jobs?

4. How well do students in the program perform on jobs, and hold jobs?

5. How is the program benefitting dropouts?
   a. Are they receiving adequate skill training for getting and holding jobs?
   b. How many dropouts re-enter the regular program?
   c. How many dropouts receive high school diplomas? GED's?

6. Are community resource people being utilized?

7. What linkage is there with DECA, COE, NYC, Community College, Davis-Monthan Air Force Base and other agencies and institutions?

8. How much individual and small group counseling time is given to students in school and on the job?

9. How successful is the program in placing students in jobs?

10. What happens to dropouts who enter the program?
    a. How many re-enter the regular high school program and graduate?
    b. How many re-enter the regular high school program and again drop out?
    c. How many complete a vocational course? How many get jobs? What kind?

These questions are being answered this third and final year of the project because: 1) Expansion of the project has provided new data, not previously attainable, 2) The project has been modified to provide more explicit data, or data which may allow a different answer, or 3) The questions were not fully answered in the last year's evaluation.

III. INFORMATION NEEDS

These questions are designed to meet the information needs of a wide group of persons interested in the project and its success. On October 12, 1972, twenty-three information users stated what questions they felt needed answering during the next two project years. As (1) data used to answer these questions and (2) the answers to the questions themselves provide verification of the project's success on previously stated global objectives, specific statements regarding success on objectives are not made in this report. It is hoped by the evaluation staff, that answers to the stated questions will prove beneficial in assessing the project's success--as well as identifying the areas of failure and potential cause for concern.

PROGRAM PARTICIPATION

The target area for implementation of the Career Education Project has been the Tucson Model Cities area. Each year the population at the elementary level has expanded. The third year included students from the following schools. Years of participation are noted in parenthesis.

Elementary

Borton	(2)
Davis	(3)
Drachman	(2)
Manzo	(1)
Ochoa	(2)
Richey	(1)
Roosevelt	(3)

Junior High

Spring	(3)
Safford	(3)

Senior High

Tucson High	(3)

Control students were selected from the Tolson Elementary School. It should be noted that Tolson was participating in the Pima County Career Education Program, hence comparisons are made between projects rather than between experimental and control groups.

IV. MEASURING CHANGES

Several instruments were used to gather data to answer their evaluation questions. All instruments were project developed, tested and revised for use in this project, as previously existing instruments did not seem appropriate for the given population, objectives and implementation techniques. The instruments included in this year's evaluation, along with the schedule of administrations are outlined below.

TABLE I

INSTRUMENTS DEVELOPED AND THEIR ADMINISTRATION TIMES

INSTRUMENT	LEVELS	AUDIENCES		ADMINISTERED	
		Project	Control		
Career Awareness Survey Form K-1	K-1	X	X	Pre	Post
Career Awareness Survey Form 2-3	2, 3	X	X	Pre	Post
Career Awareness Survey Form 4-6	4, 5, 6	X	X	Pre	Post
Kit Assessment Form K-1	K-1	X	X		Post
Kit Assessment Form 2-3	2, 3	X	X		Post
Kit Assessment Form 4-6	4, 5, 6	X	X		Post
Elementary Teacher Questionnaire	Staff	X			Post
Log of Activities	Staff	X		Ongoing	
Student Interview	Jr. High	X			Post
World of Construction Test	7, 8	X		Pre	Post
World of Manufacturing Test	7, 8	X		Pre	Post
SICS Packs Test	Sr. High	X		Pre	Post
Senior High Career Awareness	Sr. High	X		(Pre -	Post)
				Ongoing	
Skills Training Checklist	Sr. High	X		Ongoing	

The tests were administered by classroom teachers (except for post test--senior high school career awareness), who were familiar with the students. Assessment measures were read to students in the elementary school to (1) reduce

the chance of the instrument measuring reading abilities, and (2) to reduce the chance of language difficulties which might present a problem.

At the senior high level, the Career Awareness test underwent several revisions in an attempt to make it more sensitive to the curriculum being taught. Only data gathered on the last edition have been included for presentation in this paper.

All pretest data were gathered at the beginning of the school year, and all post-test assessments were made during late April or early May except for the Junior High School tests and Senior High Career Awareness Surveys.

The following table indicates that the World of Construction at Safford and World of Manufacturing at both Spring and Safford were one semester courses. Therefore, post assessment was conducted in January for the Fall classes, and pre-assessment for the Spring classes was conducted in February.

The senior high tests were administered the first day of the two week course and the post-test the last day of the course. Pretests were administered by classroom teachers with the post-tests administered by the Career Education project personnel.

The evaluation design related the assessment measures to the evaluation question to be answered. Except for the previously mentioned Senior High Career Awareness instruments,

SCHOOL	SAFFORD		SPRING	
GRADE	FALL SEMESTER	SPRING SEMESTER	FALL SEMESTER	SPRING SEMESTER
7	(WORLD OF CONSTRUCTION) NS=150 PRE — POST	(WORLD OF MANUFACTURING) NS=150 PRE — POST	(WORLD OF CONSTRUCTION) NS=80 →	 PRE — POST
8	(WORLD OF MANUFACTURING) NS=46 PRE — POST	(SHOP) NS=45	(WORLD OF MANUFACTURING) NS=50 PRE — POST	(WORLD OF MANUFACTURING) NS=50 PRE — POST

all assessment devices remained unchanged during the year. Except for the Elementary Career Awareness test, measurement instruments remained constant from year to year. There the modification was to create three forms of the test, where previously only two had existed. The prupose was to increase the difficulty of the test for the second and third grade students.

V. PRESENTATION OF THE DATA

Several instruments, as previously listed, have been administered throughout the year. Data gathered this year are reviewed below by instrument. Students taking pre or post assessments were included in the elementary school results. An analysis of participants by school is presented in the following tables:

A. CAREER AWARENESS TEST - FORM K-1

		KINDER-GARTEN	FIRST GRADE
PRE	MEAN RAW SCORE	23.7	26.2
	NUMBER STUDENTS	55	57
	STANDARD DEVIATION	3.57	3.67
	MEAN RAW SCORE	26.9	27.8
	NUMBER STUDENTS	78	109
	STANDARD DEVIATION	3.85	3.90

POST	MEAN RAW SCORE	24.1	25.8
	NUMBER STUDENTS	39	50
	STANDARD DEVIATION	3.23	2.75
	MEAN RAW SCORE	28.2	29.5
	NUMBER STUDENTS	21	59
	STANDARD DEVIATION	3.12	2.71

B. CAREER AWARENESS TEST - FORM 2-3

			SECOND GRADE	THIRD GRADE
EXPERIMENTAL SCHOOLS	PRE	MEAN RAW SCORE	38.1	38.8
		NUMBER STUDENTS	155	124
		STANDARD DEVIATION	4.08	3.52
	POST	MEAN RAW SCORE	38.2	41.7
		NUMBER STUDENTS	166	135
		STANDARD DEVIATION	4.44	3.65
CONTROL SCHOOLS	PRE	MEAN RAW SCORE	39.4	40.3
		NUMBER STUDENTS	58	59
		STANDARD DEVIATION	3.66	3.42
	POST	MEAN RAW SCORE	40.6	42.0
		NUMBER STUDENTS	53	53
		STANDARD DEVIATION	3.72	3.25

C. CAREER AWARENESS TEST - FORM 4-6

		FOURTH GRADE	FIFTH GRADE	SIXTH GRADE
PRE	MEAN RAW SCORE	23.0	24.1	26.3
	NUMBER STUDENTS	150	217	165
	STANDARD DEVIATION	5.87	5.67	5.23
POST	MEAN RAW SCORE	24.3	28.3	29.3
	NUMBER STUDENTS	175	253	174
	STANDARD DEVIATION	6.29	5.47	4.89

PRE	MEAN RAW SCORE	22.8	24.4	23.5
	NUMBER STUDENTS	51	36	67
	STANDARD DEVIATION	6.35	4.89	5.21
POST	MEAN RAW SCORE	22.5	27.2	26.9
	NUMBER STUDENTS	51	55	69
	STANDARD DEVIATION	7.59	4.11	6.68

D. To determine the effectiveness of Career kits on elementary school students, the Career kits test was administered. This measure used a different form for K-1, 2-3, and 4-6. For all students, the number of correct responses was noted in addition to the number of kits which their teachers used. These data are reported in Table D-1. In some cases it was difficult to ascertain exactly which kits had been used with different classes because teachers found the kits easy to pass around and share with other teachers. Unfortunately the practicality of the education situation was dominant over the desires for a tight research design.

At the 4,5, and 6 grade levels, each of twelve kits were assessed by four questions. In an attempt to relate success on kit information with use of kits, students were grouped as to whether they had been exposed to no kits, 1-6 kits, or 7-12 kits. Then students' kit scores (number of responses correct out of four possible responses) were subgrouped as to whether that student had been exposed to that individual kit. Information for these groupings is presented in Table D-2.

The kits assessed by varying forms of the test are outlined in Table D-3.

D-1. CAREER KIT ASSESSMENT

		KINDG.	FIRST	SECOND	THIRD	FOURTH	FIFTH	SIXTH
CONTROL SCHOOLS		$\bar{x}$ = 16.85 NS = 20	$\bar{x}$ = 18.28 NS = 57	$\bar{x}$ = 13.88 NS = 50	$\bar{x}$ = 14.85 NS = 55	$\bar{x}$ = 19.57 NS = 56	$\bar{x}$ = 27.26 NS = 46	$\bar{x}$ = 28.3 NS = 73
		$\bar{x}$ = 21.29 NS = 21	$\bar{x}$ = 17.86 NS = 14	$\bar{x}$ = 9.93 NS = 46	$\bar{x}$ = 12.12 NS = 65			
EXPERIMENTAL SCHOOLS	1							
KITS USED	2		$\bar{x}$ = 18.74 NS = 27	$\bar{x}$ = 15.69 NS = 65		$\bar{x}$ = 20.09 NS = 66		
	3		$\bar{x}$ = 16.87 NS = 15	$\bar{x}$ = 12.67 NS = 18		$\bar{x}$ = 23.44 NS = 25	$\bar{x}$ = 24.46 NS = 136	
	4							$\bar{x}$ = 25.57 NS = 21
	5					$\bar{x}$ = 18.74 NS = 27	$\bar{x}$ = 24.75 NS = 28	$\bar{x}$ = 24.31 NS = 80
	6		$\bar{x}$ = 16.35 NS = 23				$\bar{x}$ = 23.18 NS = 71	
	7				$\bar{x}$ = 15.29 NS = 7			
	8							$\bar{x}$ = 29.01 NS = 56
	9						$\bar{x}$ = 20.39 NS = 28	
	10							$\bar{x}$ = 28.75 NS = 24

$\bar{x}$ = MEAN RAW SCORE

NS = NUMBER OF STUDENTS

D-2. SCORES ON KITS FOR SIXTH GRADE STUDENTS

	CAMERA	HORTI-CULTURE	ECOLOGY	CREEP FIGHTING	DENTAL	GEOLOGY	FOODS	CAREER READING	HEALTH SERVICES	WEATHER	COSME-TOLOGY	PLUMBER
NO KITS Control- - -	N=42 M=2.4 S=.98	N=42 M=2.0 S=1.10	N=42 M=2.0 S=.95	N=42 M=2.2 S=.87	N=42 M=2.3 S=.94	N=42 M=1.7 S=1.06	N=42 M=2.5 S=1.15	N=42 M=2.1 S=1.12	N=42 M=2.5 S=1.02	N=42 M=2.0 S=1.09	N=42 M=2.0 S=.95	N=42 M=2.7 S=.93
Experimental-	N=43 M=2.8 S=.74	N=43 M=2.2 S=.78	N=43 M=2.6 S=1.16	N=43 M=2.3 S=.92	N=43 M=2.5 S=.92	N=43 M=1.8 S=.95	N=43 M=2.0 S=1.33	N=43 M=1.8 S=1.07	N=43 M=1.8 S=.88	N=43 M=2.3 S=1.26	N=43 M=2.6 S=.81	N=43 M=2.5 S=1.02
1-6 KITS USED Kits Not Used-	N=42 M=2.5 S=.93	N=93 M=3.5 S=1.07	N=93 M=2.3 S=1.18	N=107 M=2.4 S=1.19	N=73 M=2.8 S=1.62	N=96 M=2.2 S=1.10	N=32 M=1.9 S=1.26	N=49 M=1.9 S=1.2	N=51 M=1.7 S=1.02	N=39 M=2.1 S=1.3	N=75 M=2.2 S=1.18	N=30 M=2.1 S=1.4
Kits Were Used-	N=71 M=2.1 S=.87	N=20 M=2.1 S=1.15	N=20 M=1.6 S=.80		N=61 M=1.5 S-1.4	N=11 M=1.7 S=.75	N=79 M=2.2 S=.99	N=63 M=1.2 S=1.35	N=41 M=1.4 S=1.11	N=52 M=2.5 S=1.25	N=11 M=1.2 S=.86	N=61 M=2.5 S=1.05
7-12 KITS USED Kits Not Used-	N=59 M=2.5 S=.81	N=29 M=3.0 S=1.38		N=59 M=2.3 S=.85	N=34 M=2.6 S=.59		N=34 M=3.3 S=.86	N=29 M=2.6 S=1.29	N=34 M=2.3 S=1.02			
Kits Were Used-		N=52 M=2.1 S=1.13	N=84 M=1.9 S=1.10	N=31 M=1.9 S=1.24	N=53 M=2.7 S=.83	N=84 M=2.1 S=1.32	N=53 M=3.0 S=.99	N=84 M=2.0 S=1.2	N=73 M=2.3 S=1.22	N=105 M=2.5 S=1.31	N=105 M=2.4 S=1.22	N=105 M=2.8 S=1.22

N=NUMBER OF STUDENTS
M=AVERAGE SCORE
S=STANDARD DEVIATION

D-3. VARYING KITS ASSESSED WITH DIFFERING FORMS OF CAREER KITS TESTS

KITS	K-1	2-3	4-5-6
Reading	*	*	*
Supermarket	*	*	
Horticulture			*
Camera			*
Cooking	*	*	*
Geology			*
Plumber	*	*	*
Transportation	*	*	
Health Services	*	*	*
Crime Fighters			*
Hat	*	*	
Ecology			*
Weather			*
Dental	*	*	*
Cosmetology		*	*

E. To determine attitudes of teachers towards the implementation of Career kits, they were invited to a half-day workshop which focused on evaluation activities. Part of their participation was to fill out a questionnaire regarding their use of the kits. Not all teachers attended, but of the 18 who did, responses on their questionnaires have been summarized. This summary is presented in section E.

Summary of Teacher Assessment

Career Education Kits

Directions: Please answer the questions frankly and do not sign your name. Do not discuss your answers with other teachers.

1. Do you believe the kit helped you teach aspects about career awareness to your class? Yes 100% No 0% N=18

   Please explain - More than half of the teachers stated that the kits provided greater motivation for the students. Three participants expressed the belief that the kits offered a greater variety of experiences than otherwise available in the classroom.

2. Do you think the kits helped you to improve the teaching of curriculum area subjects? Yes 100% No 0% N=18

   Please explain - The kits' improvement of curriculum seemed to focus on relating the real world of materials and experiences to school theory and academics. Most of the participants believed that the kits provided the vehicle for forming this relationship in the minds of the students.

3. Do you think your students participated more in activities with the kits than in activities without the kits? Yes 81% No 19% N=17

   Please explain - Positive responses to this question by the teachers reiterated the views expressed in question 1 above. The students became personally involved with real materials and experiences. One respondent stated that some of the kits were not readily available to the teacher.

4. Did you use more than one career kit? Yes 100% No 0% N=18

5. If your answer was yes to question 4 above, which kit(s) do you believe was more effective in obtaining your lesson objective?

   The answers were varied to this question with 16 kits reported as being more effective by the participants. The Cosmetology and Cooking kits were more often listed as being effective in obtaining lesson objectives, however these kits were also available last year. One relatively new kit rated as more effective was the Carpenter kit.

   a) Please explain - Again, the participants stated that the students were offered a more complete and meaningful experience with these kits.

6. In kits with suggested activities did you ever substitute your own activities?

Yes 94% No 6% N=18

7. If your answer was yes to question 6 above, in which kit did you substitute activities?

The pattern was for teachers to substitute activities in kits which they formed to be more effective. As an example, the Cooking kit had the greatest number of activities substituted of all the kits used.

8. Did the suggested activities of the kit(s) help you to plan other activities related to the career(s) represented by those kits?

Yes 77% No 23% N=17

9. Did you use any kits which contained main ideas for career education goals?

Yes 77% No 23% N=17

10. If your answer was yes to question 9, did you teach toward those main ideas?

All of them _____ Some of them 79% None of them 21%

N=13

11. If you taught toward any of the main ideas, did you feel you were successful in getting across those ideas to students?

Almost always 36% Sometimes 64% Almost never 0% N=13

12. If your answer to question 11 is either almost always or sometimes, how did you determine this success (please explain)?

Please explain - The most frequent methods of assessing success in getting across the main ideas were 1) through oral questioning of individual students by the teacher, 2) class discussion with student participation, and 3) written objective tests administered by the teacher. Again, participants often noted increased student activity in such assessment.

13. In general, do you believe that you could teach the main ideas without the use of the kits? Yes 56% No 44% N=16

14. If your answer to question 13 was yes, do you feel the use of the kit is still justified for other reasons? Yes 100% No 0% N=9

If yes, for what reason(s) are the kits justified? - Of the teachers who believed that they could teach the main ideas without the kits, all of them had other reasons to justify using the kits. Four out of five participants indicated that increased student activity and involvement was the reason to justify the use of kits. Two respondents stated that the tools required for particular careers was another reason justifying the kits' use.

Summary:

The theme recurred again and again that the career kits provided the students with a greater variety of materials and experiences than would otherwise be available. No one kit seemed to be the most effective. However, kits chosen as being more effective by inservice participants were also more likely to have activities substituted for those suggested in the kit guidelines.

Questions 9-11, centering on the teaching of main ideas suggested in the guidelines, indicated that where kits contained main ideas, most of the teachers were teaching for them. Too, the teachers believed they were having moderate success in getting such ideas across to the students. The majority of the participants believed that the main ideas could be taught without the use of the kits, but that the use of the kit nevertheless enriched the students' experiences.

Some additional suggestions which evolved in subsequent discussions were that kits might be developed around puppets, electricity, mechanics and drama. Another recommendation was that each participating teacher should receive a booklet of the career kits available, their contents, suggested activities and main ideas.

F. PROJECT LOGS

Each project staff member kept project logs to help in identification of activities related to the project. These are summarized for the project coordinator; Elementary, Junior High, and Senior High resource people.

In reviewing the logs it must be noted that all activities within the same cell do not represent the same degree of involvement. A report may be a one page summary on a final report encompassing many days efforts. Simlilarly, meetings may be a 15 minute overview with one teacher of a special activity, or a detailed session involving many hours of preparation and direct interchange.

.roject Director

ACTIVITIES	OCT	NOV	DEC	JAN	FEB	APRIL	MAY
Meetings, Evaluation	1	4	2	6	6	3	1
Video-Taping	1		1				
Elementary	3	1	2	1	3	3	2
Junior High	1			1	6	3	
Senior High	1		2	4	1	2	2
PR (*see below)	3	7	7	6	6	7	7
Planning workshops Preview films	1				1		
Staff meetings			1	1	1		
Inventory						1	
Report Writing							4

*Area A, Pima County College, University of Arizona, Follow-through Inservice, Brochure, Tuscon I, and others

Elementary Resource Person

ACTIV. f	SEPT	OCT	NOV	DEC	JAN	FEB	MARCH	APRIL	MA
etings (Project aff and visitors)	11	5	7	3	3	5	6	6	5
ventory and Assembly Kits (typing, plans, search, and looking r materials)	6	6	13		6	3	7	5	15
opping	4	3	3	1			1	1	
ld workshop nned workshop	1	5 5	5 1 wkshp - 4	1 wkshp - 1	wkshp - 2	wkshp - 2			1
sits with teachers, liveries, schedules buses	18	11 *Follow-up	13	1	13	11	9	3	
rk with children classes	1	1					2		
anned field trip for achers	2								
anned field trip for ildren	3	4	5			3			
nducted field trip r children	2		2			2	1		
port Writing	1	1		1					
aluation		1	1				wkshp 2	2	5
. R. Brochure				2		4			

SUMMARY OF LOG COMMENTS

Elementary Resource Person

VISITS TO SCHOOLS

	SEPT	OCT	NOV	DEC	JAN	FEB	MARCH	APR
All seven "program schools"	2	2	5	1				
Richey	1	1	1		2	2	4	
Ochoa	1	3	1		2	3	4	
Drachman	4	1	1		4	5	4	
Borton	1	1	2		3	5	2	
Manzo	3	1	3		4	4	3	
Roosevelt	3		1		4	4	1	
Lyons								
Nash								
Spring					1			
Davis					3	2	1	
Unnamed schools			9					
Unnamed teachers					3			

Junior High Resource Person (calls count as meetings, as do Career Days)

ACTIVITY	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May
Meetings	1	9	10 *(3)	6		14	13		12	
Providing Materials	1	3	2	4		2			6	
Visiting w/T.	1	1	6	1					1	
Planning & Curriculum		4	1*	3			1		1	
Eval. Activities		1	3 *(1)			1	1		5	
Report Writing		2	2			1	1		4	
Field Trip		2	2 *(1)	2					2	
Set Up Field Trip		1	3	1					4	
Inservice Plans & Meetings		2	3 *(1)	5		3				
Window Display PR PHX.			3	2					7	
Resource Speaker			2	1					2	
Gen'l Office Duties						2			5	

*Follow-up Indicated.

Senior High Vocational Counselor

ACTIVITIES	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	APRIL
Meeting with Children	3	77	13	53	30	44	42	19
Meeting with Parents		1	1					
Meeting with Employers	7	21	12	17	5	10	11	6
Job Visit	2	2	4	6	4		6	12
Meeting with Staff	2	13	3	11	8	7	4	
Community Contacts*		2	1	1		1		
Arizona State Department		2				2		1
Class Contacts Resource People		1	3		5	1		
Administer Tests			2		1			
PR			1	1	2		1	2
Report Writing			1	1		2		

*Lions, Pima County College, Phoenix Program

Senior High Classroom Teacher

ACTIVITIES	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Apr.	May
Speaker		4	4	1	4	3	6	5	3
Field Trip		3	18	10	9	18	6	7	
Teaching, Interviewing, Counceling*(taught Eng. & Saltzman)	*about five per day →	12	23	25	18	31	24	17	23
Meetings & Inservice Evaluation	8 1	16 2	17	13 2	7	3	12	11 2	3
	3	10	10	8	2	9	4	4	1
Saltzman		8	5	7	2	3	3	23	14
Supplies & Materials		1	1						
Report Writing		3			2				4
PR Displays			2	2				6	1
Planning of & Est. Students & Grading Papers						2	2	3	9
General Office Work					1	1			6

G. STUDENT INTERVIEW

Student attitude is most difficult to assess. In an attempt to measure this attitude towards career awareness, an instrument was administered to 300 students who had participated in at least one of the project-sponsored programs at either Safford or Spring. A summary of their responses is presented in Table G.

Career Education Program
Junior High School Students

School Safford and Spring Jr. High

You can help us find out if the career and job education program you have been taking is useful to students. Please answer these questions according to the way you feel. There is no one "right" answer. Check (✓) your choice.

1. Do you think your career education studies have helped you learn about different jobs? N = 288

   Yes 95.8% No 4.2%

2. Do you think your career studies will help you to get a job later on? N = 296

   Yes 79.8% No 20.2%

3. Have they helped you get a better idea of what you would like to do for a living? N = 280

   Yes 75.9% No 24.1%

4. How does your career education work compare to other school work? N = 292

   Less interesting 4.8% More interesting 54.1% About the same 41.1%

5. Did you take the course on the World of Construction? N = 280

   Yes 72.5% No 27.5%

   (If your answer is No, skip Questions 6-8.)

6. Did you learn anything new about construction? N = 203

   Yes 90.1% No 9.9%

7. Did you finish most of your work in the construction unit? N = 215

   Yes 85.1% No 14.9%

8. Would you like to learn more about construction? N = 226

Yes 86.3% No 13.7%

9. Did you take the course on the World of Manufacturing? N = 264

Yes 58.0% No 42.0%

(If your answer is No, skip Questions 10-12.)

10. Did you learn anything new about manufacturing? N = 153

Yes 83.2% No 16.8%

11. Did you finish most of your work in the manufacturing unit? N = 160

Yes 81.9% No 18.1%

12. Would you like to learn more about manufacturing? N = 160

Yes 85.0% No 15.0%

Comments on Your Career Education Program:

See attached Summary and Analysis

Career Education Questionaire-Junior High School Students:
Summary and Analysis

This questionaire was administered in April 1974 to 200 students at Safford Junior High School and 96 students at Spring Junior High. All had been participants in either the World of Construction program or the World of Manufacturing, or both.

The first four questions on the form called for general response as to the value and interest of career studies. More than 95 percent of the students answering, felt that their "career education studies have helped (them) learn about different jobs." A somewhat smaller group (88.5 percent at Spring, 75.5 percent at Safford) thought their studies in this area would help them get a job. Slightly fewer again -- though still well in the majority -- believed the programs had helped them get a better idea of what they would like to do for a living.

When asked to compare the program to "other school work," more than 95 percent of those responding felt it was as interesting as other work or more so. Within those two categories, however, there were distinct school differences: 70.52 percent of students responding from Spring rated the program as more interesting than other school work, while the group at Safford was more evenly split -- 46.19 percent rating the project as more interesting, and 48.74 rating it about the same as other school work. This difference may in part be related to the fact that larger numbers of students at Spring studied only the World of Construction, rather than both World of Construction and World of Manufacturing. The interest inherent in learning about the former career area, in which there are many more job opportunities in Tucson, and in which many students may have friends or relatives employed, may have led to greater student enthusiasm than did studying manufacturing alone, or studying both career areas.

The second set of four questions pertained to the World of Construction program only. Eighty-five of the students at Spring and 118 of those at Safford reported participation in this program. Most respondents (85-90 percent) said that they had learned something new about construction, they had finished the work in the construction unit, and they would like to learn more about construction.

The third and last set of four questions concerned the World of Manufacturing. Thirty-eight of the students at Spring and 115 at Safford said they had taken this course. Most students (80-85 percent) said that they had learned something new about manufacturing, had finished most of their work in the unit, and would like to learn more about manufacturing.

At the end of the form a space was provided for <u>comments</u>. Those made most frequently by Spring students were:

a. Have more field trips (mentioned 15 times)
b. Have more tools available (9)
c. Didn't like the textbook (8)

d. Have more options as to activities (6)
e. Show more movies and tapes on construction (5)
f. Provide more time to work (5)

Safford students were less specific, but generally positive in their replies: 36 students said they liked the course, or would like to take it again; six also praised the career day program.

In general, it would appear that the World of Work program was quite well received by participating junior high school students. The World of Construction, with its obvious application to job openings in Tucson, was perhaps viewed somewhat more positively by students than was the World of Manufacturing. Two suggestions arise:

1. Perhaps other programs could be developed to acquaint students with other career areas in which jobs are available in Tucson -- e.g., various phases of mining:

2. Time should be taken to make students aware of job markets beyond Tucson and, perhaps at the high school level, the concept of relocation to increase career options should be seriously discussed.

II. WORLD OF CONSTRUCTION

The World of Construction test and World of Manufacturing test were administered at the beginning and end of each course to participating students. In some instances this was over one semester, in other instances over the school year. Scores are reported only where both pre and post test scores are available for the student. There were many students who had either a pre or post test score but not both. These data are presented in Table II and Table I.

H. WORLD OF CONSTRUCTION

	Class taught during one year (Seventh Grade) (Safford School)		Class taught during one semester (Seventh Grade) (Spring School)	
	PRE-TEST	POST-TEST	PRE-TEST	POST-TEST
MEAN RAW SCORE	9.15	21.3	16.8	25.3
NUMBER OF STUDENTS*	75	75	24	24

*Only student scores used where both pre and post tests were recorded.

I. WORLD OF MANUFACTURING

	(Seventh Grade)		(Eighth Grade)	
	PRE-TEST	POST-TEST	PRE-TEST	POST-TEST
MEAN RAW SCORE	21.8	29.6	24.6	35.4
NUMBER OF STUDENTS*	29	29	78	78

*Only student scores used where both pre and post tests were recorded.

J. SICS PACKS TEST

The SICS Packs Survey was given to participating Senior High students in a pre-post situation. Only ten students completed the 50 item pre-test, and of those 10, four completed the post-test. An additional three students took the post-test who did not take the pre-test. The data are presented here, but because of the small number of participants, will not be considered in further discussion.

TABLE J

RESULTS OF SICS PACKS SURVEY

Total Group Pre		Total Group Post	
N	Mean	N	Mean
10	35.6	7	40

Continuous Group Pre		Continuous Group Post	
N	Mean	N	Mean
4	35	4	39

K. SENIOR HIGH CAREER AWARENESS TESTS

The Career Education test is administered pre and post to students participating in the two week career awareness program. The test has undergone several modifications in an attempt to make it more difficult. Prior to revision, pre-test scores on Part I, the identification of terms section, was 65%.

Part II of the test contains questions relating to two specific careers which the students indicated they might like. Students were asked to answer the same question on the post-test for their first career or job choice as they did on the pre-test. They were allowed to change their second choice on the post-test if they so desired.

Results of the latest revision are presented in Table K.

TABLE K

SUMMARY OF SENIOR HIGH CAREER AWARENESS TEST

Part I	# of students	Mean
Pre	177	15.1
Post	177	18.1

$\hat{z}$ for correlated data is .876 indicating a difference pre to post $< .05$.

Evaluation of Career Education Test, Revised 2/20/74

Tucson High School

Part I of the test consists of 22 questions, mostly multiple choice, whose content deals with definitions of commonly used terms, the characteristics of larger career clusters and matching specific occupations to such clusters. This part of the test has been shortened with a shift toward greater emphasis on Part II. However, some attempt was made to keep items which had previously shown greater difficulty and discriminating power.

The initial results showed that this part of the test is still too easy, since the students (N=38) averaged 65 percent of the questions correctly on the pretest. The average posttest score was 80 percent, an increase of 15 percent.

Part II of the test was revised to include more questions relating to two specific careers which the students indicated they might like. The students were asked to answer the same questions on the posttest for their first career or job choice as they did on the posttest. They were allowed to change their second choice on the posttest if they so desired. Because of the flexibility allowed within the test, the results have been categorized according to way in which the students responded to both pretest and posttest on Part II.

For those students (N=27) who made the same first job choice on the pretest and posttest, 13 out of 27 made a gain of 2 or more raw score (R.S.) points (7 possible). The average score increased from approximately 4 R.S. points to 6 R.S. points.

Where students had the same second choice on the pretest and posttest (N=10), seven out of ten made a gain of 2 or more R.S. points (7 possible). The average raw score increased from 3.7 on the pretest to 5.0 on the posttest.

Two out of 38 students had no second choice on the pretest, but all students had a second choice on the posttest.

Twenty-four out of 38 changed their second choice from pretest to posttest, or approximately 63 percent of the students. For students who changed their second choice on the posttest and understood how to mark the answer sheet, their mean raw score increased from 2.9 on the pretest to 5.3 on the posttest. Thirteen out of 20 students showed an increase of 2 or more raw score points (7 possible).

Summary:

Part I of the Career Education Test is still too easy as indicated by the average pretest scores. On the posttest of Part I, students were able to answer four out of five questions correctly. Part II of the test showed significant raw score gains between pretest and posttest for the same first job choice, and also for the second job choice when it was changed between the pretest and posttest. It is possible that the second job choice on the pretest has become the first job choice on the posttest for the student. The fact that almost two out of three students change their second career choice may have practical significance.

TPS
Research
3/ /74

L. SKILLS CHECKLISTS

The extended day program has had several classes operating during the course of the project. These include nurse aide training, welding, office skills, and auto mechanics. Specific skills checklists have been provided for the welding and office skills sections.

The skills checklist provides an ongoing technique for monitoring the progress of students in the program. The office skills section developed initially two checklists; one for typing skills and one for office skills. Later, these were combined into one list of 20 skills. The welding checklist consists of 23 skills. The percent of students reaching attainment on these skills checklist is summarized in Table L.

L. SUMMARY OF PERCENT OF STUDENTS REACHING ATTAINMENT ON SKILLS CHECKLISTS

Skill #	Office Skills	Welding Skills
1	100%	100%
2	100%	100%
3	100%	100%
4	47%	100%
5	7%	100%
6	80%	100%
7	7%	63%
8	80%	63%
9	73%	63%
10	67%	63%
11	60%	63%
12	73%	25%
13	73%	25%
14	67%	25%
15	73%	25%
16	33%	25%
17	93%	13%
18	80%	13%
19	80%	13%
20	67%	13%
21	X	63%
22	X	0%
23	X	75%

VI. DATA ANALYSIS

Basic analysis consisted of descriptive statistics focusing on central tendencies of groups. Because of large variances within groups, most analysis of variance/covariance computations failed to indicate the growth which actually occurred. The large number of concommitant variables could not be identified adequately to partial out the unintended interactions.

Therefore, the major basis for judging program success, and answering stated evaluation questions consists of looking at changes in measures of central tendency and trends in groups of data.

All comparisons that are statistically significant through appropriate statistical tests are so noted.

VII. SUMMARY OF EVALUATION QUESTIONS

A. ELEMENTARY QUESTIONS

1. Do pupils in the program require more information about careers than pupils not in the program?

The data reveal that students in the control school started with greater career awareness (pretest) and finished the year with higher scores (post-test). However, this may be due to differences in experimental control populations.

Evidence does exist that pupils in the third year of the program have higher entry scores than those in the program the second year. Longitudinally, fourth, fifth and sixth grades in the program in 1973-74 had higher entry scores than fourth, fifth and sixth graders during 1972-73.

Career Awareness Assessments

Mean Raw Scores Grades 4-6

	1972-73	1973-74
Entry	21.29	24.47
Exit	25.88	27.42
N	108	550

2. Are pupils learning to work together cooperatively in projects and activities?

The teacher questionnaire was employed to answer this question. Teachers stated verbally in a meeting attended by this evaluator that kits increased student interaction. (This was even more marked at the Senior High level). The greatest variable in implementation of the career program is the teacher.

Specifically, the teacher questionnaire revealed:

a. Do you believe the kit helped you teach aspects about career awareness to your class?
Yes 100% No 0% N=18

Please explain - More than half of the teachers stated that the kits provided greater motivation for the students. Three participants expressed the belief that the kits offered a greater variety of experiences than otherwise available in the classroom.

b. Do you think the kits helped you to improve the teaching of curriculum area subjects?

Yes 100% No 0% N=18

Please explain - The kits' improvement of curriculum seemed to focus on relating the real world of materials and experiences to school theory and academics. Most of the participants believed that the kits provided the vehicle for forming this relationship in the minds of the students.

c. Do you think your students participated more in activities with the kits than in activities without the kits?

Yes 81% No 19% N=17

Please explain - Positive responses to this question by the teachers reiterated the views expressed in question 1 above. The students became personally involved with real materials and experiences. One respondent stated that some of the kits were not readily available to the teacher.

3. Do pupils in classes in which teachers attempt to reach goals by using specified objectives and activities make greater gains in career information than do pupils in classes in which techniques for reaching goals are left to the teacher?

An assessment was made during 1973-74 as to the degree to which teachers attempt to reach goals through specified activities and objectives. This question also was answered during the 1972-73 assessment.

During the second program year it was asked whether pupils in groups in the program (experimental and innovative) acquire more information about careers than pupils not in the program (control). Two Career Awareness tests, one for pupils in grades K-3 and another for grades 4-6, were developed by the internal evaluator and administered as a pre-test to 813 pupils in late November and early December, 1972.

The same tests were used as a post-test in the last few weeks in May, 1973. It proved possible to obtain post-test data on 549 of the pupils who had been pre-tested. Reasons for attrition include pupil absence or transfer, dropout of two teachers from the program, and completion of testing of one class too late to include data in the analysis.

In comparing the three groups on the basis of achievement of career awareness, post-test scores were used as a criterion and differences in means were tested for significance by analysis of covariance. Since individual differences in initial career awareness could conceivably influence criterion scores, pre-test scores were used as a control variable. By controlling initial inidvidual differences, group achievement in career awareness can be attributed to the educational experiences provided, in large part at least, by the schools between the pre-test and post-test.

Tables 1 and 2 present the mean pre-test and post-test scores, and also adjusted criterion means.

Table 1

MEAN PRETEST, POST-TEST AND ADJUSTED CRITERION MEAN SCORES FOR PUPILS IN GRADES K-3 ON CAREER AWARENESS TEST, 1972-73

GROUP		N	PRETEST	POST-TEST	CRITERION MEANS ADJUSTED
I.	Experimental	66	26.74	28.15	27.95
II.	Innovative	69	24.75	28.65	29.21
III.	Control	113	26.82	29.13	28.90

Treatment of data by analysis of covariance yields an F score of 9.0827 which is significant beyond the one per cent level of confidence. Therefore, there is little doubt that significant differences in career awareness achievement occurred between the three groups in grades K-3 during the 1972-73 school year. When the T-test was applied to the possible combinations of two of the three adjusted means, it was found that the only significant difference was between the experimental and innovative groups.

Table 2

MEAN PRETEST, POST-TEST AND ADJUSTED CRITERION SCORES FOR PUPILS IN GRADES 4-6 ON CAREER AWARENESS TEST, 1972-73

GROUP		N	PRETEST	POST-TEST	ADJUSTED
I.	Experimental	108	21.29	25.88	26.49
II.	Innovative	95	23.96	29.36	28.56
III.	Control	198	22.36	24.49	24.54

Analysis of covariance yields an F score of 0.063, which is not significant at the five per cent level of confidence. Therefore, there is little doubt that the three groups in grades 4-6 did not differ significantly in career awareness achievement during the 1972-73 school year.

During the 1973-74 school year, Tolson Elementary was selected as a control school. Whereas this school had another career education program, the concept of a pure "control" does not exist. Results of the pre-post career awareness test indicate the following raw score gains:

	Experimental	Control
K	3.2	4.1
1	1.6	3.7
2	.1	1.2
3	2.9	1.7
4	1.3	.3
5	4.2	2.8
6	3.0	3.4

Therefore, indications are, that during the 1973-74 school year pupils in classes in which teachers attempt to reach goals by using specified activities do not make greater gains than pupils in classes which did not receive benefits of the Career Education information. This finding tends to support last year's data. The following questions need to

be answered prior to determining the program's ineffectiveness, however:

1) To what degree did project teachers use activities and objectives identified by the project?
2) What techniques were the control group using?

4. Are hands-on activities effective in eliciting participation from pupils?

Analysis of the teacher questionnaire indicates a most positive response. Summary statements such as "More than half the teachers stated that the kits provided greater (than otherwise available) motivation for students," "students became personally involved with real materials and experiences," and "most participants believed that the kits provided the vehicle for forming relationship of real world to school theory," indicate teachers' observation of increased student participation.

A career kits survey was administered. It was anticipated increased kits usage (hands-on experience) would be directly related to student success on the assessment instrument. The data revealed this was not the case. Possible causes for data not indicating this relationship include teachers sharing kits, level of control over teachers' proper usage of materials, and insensitivity of the assessment measure.

Specifically, data at the sixth grade level indicate that in the 12 kits assessed:

1) increased use of kits does not tend to increase scores; and
2) using kits tend to relate to lower scores.

Further questions that need to be answered involve equality of students' entry ability, and differing patterns of teacher behavior.

5. Are Community Resource people being utilized?

Resources from the community are being used in two ways. Primarily, students go on field trips to local places, and secondly, community people come into the classroom.

Last year approximately 60 field trips were taken through the project. This year 24 field trips were project-sponsored. Several resource speakers have come to the classroom to relate vocational activities during the last two years. More than

15 different occupations have been represented.

There is no doubt community resource people have been used by the elementary resource person and the project.

B. JUNIOR HIGH SCHOOL LEVEL

1. Do students see a relationship between school and work?

   Three specific questions administered to students at Spring and Safford indicate students to see a relationship between school and work. In the first question, 95% of the students indicated they felt that the World of Work curriculum has helped them get a better idea of what they would like to do in the future and will help them get a job later on.

2. Are the World of Construction and the World of Manufacturing more effective than the regular vocational curriculum?

   Comparisons cannot be made between project students and "control" students, as no control group was assessed. Pre-post comparison scores on the criterion-referenced test indicated that students showed significant growth in both the World of Construction and the World of Manufacturing. Gains were greater (12.1 compared to 8.5) for students taking the World of Construction course over a one year period as compared to a one semester course. Gains were also greater for students taking the World of Manufacturing course at the eighth grade level compared to the seventh grade (10.8 compared to 7.8).

   In an interview with shop teachers, side benefits of the program were highlighted. All three felt students were more punctual to class and had a higher attendance rate than previous classes which they had taught. Other positive outcomes included being able to work with tools rather than spending hours memorizing names, improved group work, lack of threat to individual grading, and emphasis on concepts rather than tools. Shop teachers summarized that this curriculum was much more effective than standard vocational programs.

3. How and why were participating school selected?

   A statement from the project coordinator explains that the two Junior High schools were included in the program because they are located in the Tucson Model Cities area.

C. SENIOR HIGH SCHOOL LEVEL

1. How much and what kind of vocational counseling is given to students?

The vocational counselor has a plan for each counselee. First is an interview where the student fills out a form and makes the formal initial contact with the vocational counselor. The second phase involves job identification and placement. Here students are found jobs that meet their abilities and interests. Third, students are involved in a follow-up counseling with employers and students both participating and here the work role is most accurately defined.

The vocational counselor, through his log sheets, has identified 281 meetings with students, 89 meetings with employers, and 48 meetings with school staff to initiate and facilitate counseling sessions.

2. Are students developing an awareness of vocations?

The Career Awareness Survey was administered in its final form to 177 students participating in the two week career awareness sessions. Students indicated an average gain of 3 raw score points from pre to post. Thus, from this data alone, project students are developing an awareness of vocations.

However, two additional high school components show great bearing on this questions. The drop-out program has been most helpful in developing awareness and skills. Data in questions 5 and 10 relate to job training and placement. Students study job skills through hands-on participation.

The vocational counselor focuses attention on the awareness of vocations in helping students select jobs to work at.

Through all three emphases, students are receiving an increased awareness of vocations.

3. Do students learn skills for making applications and getting jobs?

A test was developed by the internal evaluator, called the SICS Packs Survey to measure the achievement of students in the course taught to the program participants by career and resource counselors. The test was based on the Student Individual Career Source materials. It assessed the students' knowledge and attitudes in the following areas: 1)about work-finding a job; 2)interviews and applications; 3)staying on the job; and 4)money matters.

Enough data were not gathered this year to draw conclusions regarding this question.

Data from last year (72-73) indicated students were learning skills for making applications and getting jobs. Results from that year appear in the following table.

TEST RESULTS ON SICS-PACKS SURVEY
BY TUCSON HIGH SCHOOL STUDENTS
(During 1972-73 School Year)

	N	Mean	S. D.
Class A	8	39.3	3.6
Class B	15	33.4	5.3
Total	23	35.4	5.5

Students on the average answered just over 70 percent of the questions correctly. Errors were quite evenly distributed among the four subsections of the test. The test consisted of 70 items.

4. How well do students in the program perform on jobs and hold jobs?

A significant portion of the program of students who enroll in the Exemplary Vocational Project is based on assignment to a job training station that is related to the student's area of career interest or potential interest. Agreements with employers specify periodic evaluation of the student's job performance by a supervisor. A locally prepared instrument was used to evaluate job interest, attendance, relations with fellow workers, observations of safety rules, response to criticism, follow directions, work without supervision, work area neatness, accept task responsibility, looks for work beyond assignment, entry level skill rating, pride in accomplishment, understands job purpose, care of tools and equipment, and employment potential. The scoring system used on the evaluation form was the same as that used in the Tucson Public School, with 1 being the highest grade.

The majority of the 50 students who had been in the program all or most of the last two years had average supervisor's ratings that were higher, much higher in most cases, than their cumulative school grade averages. The mean score of participants revealed that the majority of students realized definite success in the eyes of their supervisors and employers.

5.&10. How is the program benefiting drop-outs? What happens to drop-outs who enter the program?

The Career Education Project is working closely with N.Y.C., which receives referrals from juvenile court, welfare office, and other agencies. A review of the records indicate 15 students participated in typing/ office skills and 10 in welding. Additionally these students also participated in GED preparation at Liberty Center, a state funded ABE facility.

Supportive services were provided through NYC physical exams, counseling, juvenile court assistance, and referral to other agencies. Skills training was provided by situating office skills/typing people at clerical and business education work sites. This service was not available for those students in welding.

NYC is working with 134 students, of whom 28 received GED's. The Tucson Model Cities Vocational Education program has worked with 84 of these 134 students, and 24 of them have received GED's. This indicates only 4 students <u>not</u> in the Career Education Project received GED's.

Of the students in the program, none have re-entered school and graduated. None have re-entered school and dropped out. Several have completed the program and are holding skilled jobs. Some are continuing their training in skilled areas. The following table summarizes activities of a selected sample of 34 participants. Six of the 34 have gone on to continued educational opportunities.

SKILLS TRAINING AREA	NO GED/GED	PRESENT EMPLOYMENT
Nurse Aide	1/8	nurse aide (6), telephone operator, clerical, assembly line production
Auto Mechanics	7/11	auto mechanic related (5), construction (3), truck driver, loader, landscaping, building maintenance, Body Fender program (2), unknown
Business Education	0/4	college, housewife, clerical, nurse aide
Welding	0/3	construction, service, driver

6. Are community resource people being utilized?

During the 1972-73 school year 24 field trips were arranged and taken and 21 people from the community spoke about their vocations to various student groups. During the 1973-74 school year 71 field trips were arranged and taken and 30 people from the community spoke about their vocations.

Additionally the vocational counselor made five community contacts in addition to the meeting with employers.

There is no question that extensive and increased use is being made of community resource people.

7. What linkage exists with other programs, agencies, and institutions?

The program's Tucson High School Office has contact with 75 different firms and employers within the Tucson community during the last two years. These contacts have resulted in placement of approximately 100 students in jobs since September, 1972. Some linkages are with: Davis-Monthan Air Force Base, the City of Tucson Personnel Department, the Tucson Police Department, Mountain States Telephone Company, U.S. Army Recruiting Service, Tucson Gas and Electric, U.S. Department of Labor, Bureau of Apprenticeship Training, Southern Arizona District Council of Carpenters, who have all provided resource personnel and materials helpful to the program.

The Exemplary Vocational Program offers skilled training courses for Neighborhood Youth Corps (NYC) students in the following areas: automechanics, welding, nurses' aides, and office skills.

The Exemplary Program also linked with other school programs and departments such as COE, DECA, Home Economics, and English by arranging for career-related field trips and resource speakers and providing students and teachers with valuable information about careers through the services of the Career Center.

8. How much individual and small group counseling time is given to students in school and on the job?

Individual counseling was done primarily by the vocational counselor. Log records indicate 281 counseling sessions. Additionally, many of the visits with parents, employers, and staff directly related to the counseling situation. This provided an intensive counseling situation.

9. How successful is the program in placing students in jobs?

Students are placed into jobs in two ways. The vocational counselor places students during the year and these jobs turn out to be permanent. The coordinated effort with NYC also provides work/study experiences. These less often result in permanent employment. Current estimates are no less than 15% of the students placed by the vocational counselor will remain in permanent positions.

The program has been extremely successful in placing students in temporary positions. No more than 15% have been removed due to poor work habits.

VIII. RECOMMENDATIONS AND CONCLUSIONS

This program is now at the conclusion of three years. SWRA has been involved for the last two years. Based upon continuous monitoring and feedback, we have reached the following recommendations and conclusions:

Recommendations

1) Local education agencies and/or state agencies be encouraged to support continuation of this effort.

2) USOE be prepared to continue funding of a project which is just "coming of age" and which demonstrates ability to develop an effective Career Education Program.

3) Project staff be encouraged in future endeavors to increase initial communication and planning with internal agencies to initiate project continuation.

4) Techniques be developed to screen project staff and teachers to make maximum advantage of unique qualifications.

Conclusions

1) Project success is dependent upon utilization of effective personnel as opposed to development of software or materials. Good teachers become better teachers with developed materials but, as demonstrated with the elementary school kits, usage of materials alone does not automatically produce results.

2) Kits at the elementary level have become an effective means of creating student interactions, discussions, and career projects, but effective measures of assessing knowledge gains from kit usage is limited.

3) The junior high program is most effective in creating student attitudinal change and in providing such spinoffs as attendance and punctuality. Based on differences of program implementation between schools it appears program success is greatly a function of teacher interest and competency in installation of materials.

4) High school drop-out prevention and retention has been successfully implemented. The counseling program has succeeded in placing students. The awareness aspect has been continually modified and has succeeded in showing student cognitive gains. The drop-out program has succeeded in providing continual educational opportunities and has proved an incentive for many GED's.

APPENDIX I

IMPLEMENTATION OF A QUALITY ASSURANCE MODEL

FOR

TUCSON MODEL CITIES EXEMPLARY VOCATIONAL EDUCATION PROGRAM

Purpose:

The Tucson Model Cities Exemplary Vocational Education Program (Career Education Program) contracted with Southwest Research Associates (SWRA) for an external evaluation. SWRA Contract number 74-66 Item 3 states:

> "In order for the LEA to implement Career Education into the curriculum, an efficient economical method of evaluation which would insure continued high standards is needed."

It was decided that the Quality Assurance Model for Process Evaluation[1] would be adapted and the adaptations field tested to provide for this need.

The Quality Assurance Model is designed to be implemented in two phases. The flow chart on page 2 shows the twelve steps necessary in implementing both phases of the Quality Assurance Model; steps 1-7 constitute Phase I. Phase II (steps 8-12) can only be implemented with Phase I, while Phase I may stand alone. Because of the difficulty of implementing the entire model, it was decided that different sections of Phase I would be adapted and implemented at different grade levels throughout the project. Phase II could be implemented in the future, but is more time consuming, administratively difficult, and expensive because of the wide variety of required student instruments. The time schedule also makes implementation of Phase II difficult at any level except the junior high level.

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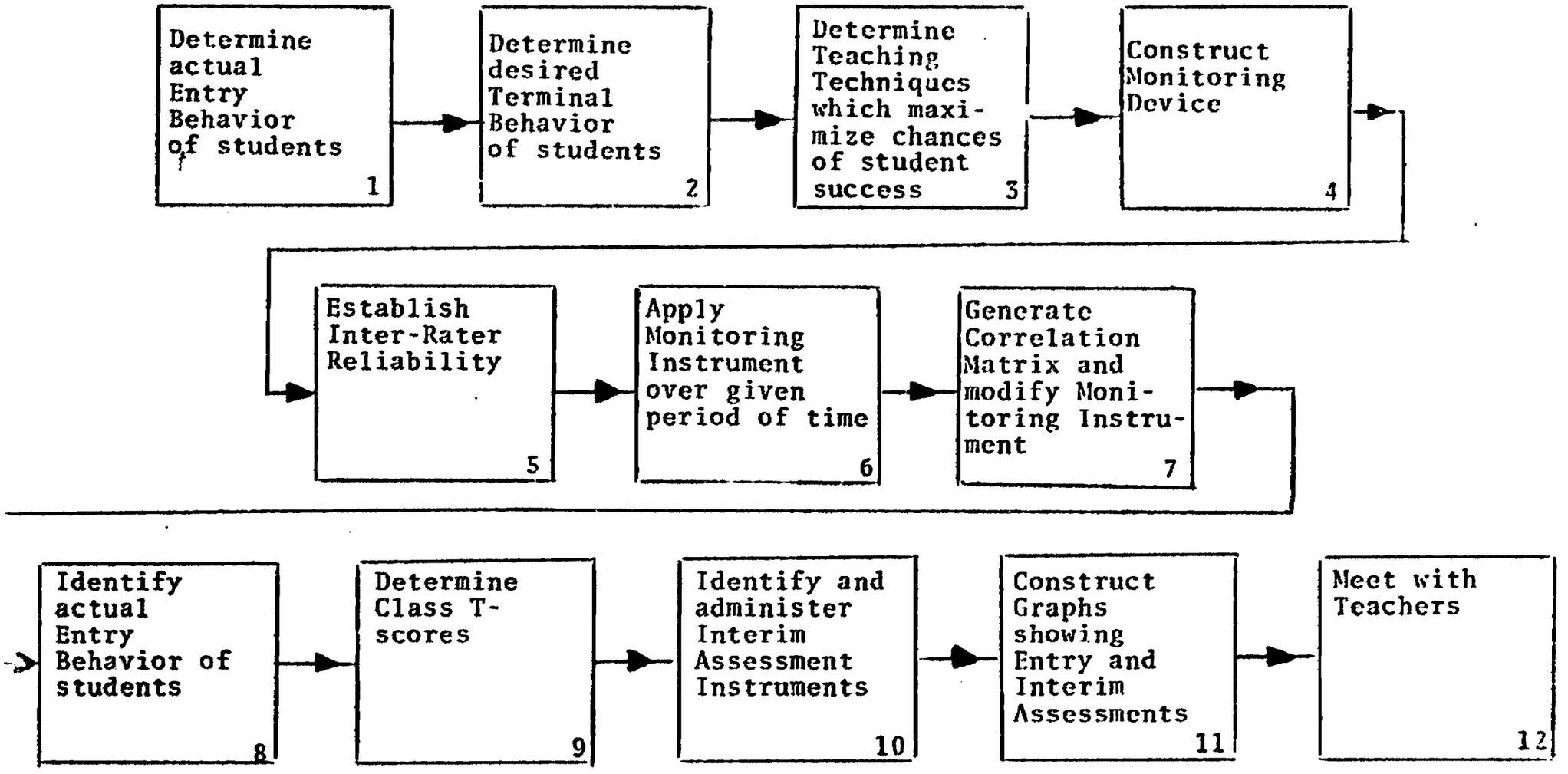
[1] Luft, M., Lujan, J., Bemis, K., "The Quality Assurance Model for Process Evaluation," in Evaluating Educational Programs and Products, Educational Technology Publications, Englewood Cliffs, N.J., 1974 (Publication pending).

FLOW CHART FOR IMPLEMENTING THE QUALITY ASSURANCE MODEL



It is the purpose of this report to outline possible Quality Assurance activities to assist in the quality implementation of Career Education as developed by the Tucson Model Cities Program.

Program Summary:

The Tucson Model Cities Exemplary Vocational Educational Program has four "types" of staff: Administrative, Classroom, Support and Resource. In implementing this Career Education Model in another district or situation, these designations may change. The role of the resource person is extremely important to the quality implementation of the program. Although varying at different grade levels, the responsibilities of the resource person will become clearer within the discussion of each level of the program.

In order to meet the changing needs of the students in elementary, junior high and high school, different career education aspects have been implemented at each level.

The basis for the Career Education Program at the elementary level is the seventeen kits which are available on a pre-scheduled basis to interested teachers. Each kit contains information and materials related to a "cluster" of related fields of employment. Field trips and resource speakers are also available to supplement the kits.

At the junior high level, a published curriculum (World of Work[1]) is implemented, and is supplemented by field trips, resource speakers and project developed video tapes.

The senior high program has three components: (1) the Job Placement Center which attempts to place interested, potential dropout students in various jobs, (2) the Career Information Center which tries to assist students in identifying possible career areas, and (3) a Dropout Program which works with previous dropouts in providing skills training.

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1 Lux, Donald G., Ray, Willis E. (Co-Directors) and Hauenstein, A. Dean (Assist. Director), Industrial Arts Curriculum Project, McKnight & McKnight Publishing Company, Illinois, 1970.

Implementation of the Model:

The Quality Assurance Model will be discussed as it has been adapted and applied to each level.

In order to assure the quality of the Elementary School Program in the elementary grades, it is essential that the Career Education kits are being used as specified in the instructor's guide.

The first method for measuring the use made of the kits is a pupil assessment. A short quiz should be developed, for each kit, possibly varying colors of paper for each assessment measure. The teachers could then be instructed to administer this test after the completion of each kit.

This concept has been pilot tested for three kits with written tests, however, a number of testing formats might be used. These could include oral interviews or written multiple choice tests. An alternative would be the use of a story format, wherein cartoon characters present a problem and the pupil taking the test is asked to solve it. Depending on the philosophy of the individual teacher, the test could be administered individually, in small groups, in committees, or in large groups. The possibility also exists that the story and characters could be used as an introduction to a kit on a pre-test basis.

Southwest Research Associates has field-tested a group of characters and has found them to be popular with elementary school students. Examples of the characters and of three possible test formats can be found in Appendix A.

A second method for measuring the use made of the Career Education kits is feedback from teachers while they are using the kit materials. In addition to offering a measure of kit use, the cards can help identify potential "trouble spots" which can then be "treated". The feedback

card shown below is currently being returned weekly by elementary teachers. Results will be reported in the Final Evaluation Report.

CAREER EDUCATION RETURN CARD
FOR TEACHER FEEDBACK

NAME OF KIT:_____ WEEK OF:_____

TEACHER:_____ SCHOOL:_____

PLEASE ANSWER THE FOLLOWING QUESTIONS. IF QUESTIONS ARE NOT APPLICABLE, PLEASE WRITE "NA". IF YOU WOULD LIKE TO EXPAND ON ANYTHING, USE THE BACK OF THIS CARD. IF YOU HAVE ANY QUESTIONS, CALL YOUR RESOURCE PERSON.

WHICH DAYS OF THIS WEEK DID YOU USE THE KIT?
MON. TUE. WED. THR. FRI. NONE
HOW MANY STUDENTS WERE INVOLVED DURING THE WEEK?_____
HOW MANY HOURS DID YOU USE THIS KIT THIS WEEK?_____

WILL YOU USE THIS KIT IF IT'S AVAILABLE TO YOU NEXT YEAR?
YES NO

WERE THERE MAIN IDEAS PRESENTED IN THE KIT FOR YOUR USE? YES NO
WERE YOU ABLE TO USE ANY OF THEM? YES NO

DID YOU USE A FIELD TRIP TO SUPPLEMENT THIS KIT? YES NO
DID YOU USE A RESOURCE SPEAKER TO SUPPLEMENT THIS KIT? YES NO

HOW DID YOUR STUDENTS REACT TO THIS KIT?
VERY WELL SO-SO POORLY
WHAT IS YOUR OVER-ALL REACTION TO THIS KIT?
GREAT SO-SO POOR

DID YOU NEED ANY ADDITIONAL INFORMATION TO USE THE KIT AS YOU PLANNED? YES NO

WHAT ADDITIONAL INFORMATION OR SUPPLIES DO YOU NEED FROM THE RESOURCE PERSON?

SWRA 74-66-2-74

An alternate method of measuring the use of the Career Education kits and one which more closely relates to the Quality Assurance Model as referenced on page one is the observation of teacher behavior. This can be accomplished several different ways; an observation instrument is the usual method. Ideally, this instrument is constructed early in the program, during a meeting with teachers and other program personnel, and measures occurances of those behaviors which seem to be most effective in implementing a given program. Since the teachers do have input to the observation instrument, and since the completed instrument must be discussed with the teacher after observation sessions, and a copy is left with the teacher, the observations become non-threatening. There are many implications to this procedure, one of the most notable being the involvement of the classroom teacher in the implementation and evaluation activities.

The quality initiation of the Junior High School Career Education Program in the junior high grades depends on the quality use of three factors:

1. World of Work (Worlds of Construction and Manufacturing);
2. field trips; and
3. video-tapes.

Checklists and observation schedules could easily be developed which would measure how well and how often recommended or prescribed teacher activities and behaviors are being used. At first, these behaviors could be hypothesized; later, after sufficient data are gathered, revised observation instruments with established validity can be used.

An added advantage to the use of observation schedules such as the ones outlined is that they can be used by the teachers as a lesson planning device. The teacher can easily see areas which he may want to expand at a later time.

Although the observation instruments found on the following pages were not pilot-tested in the Tucson project, the Field Trip Checklist is based on a project memo (see Appendix E). Also, the World of Work Classroom Observation Instrument is based on the procedures found in the Laboratory Manual.

TUCSON MODEL CITIES
CAREER EDUCATION PROGRAM

FIELD TRIP CHECKLIST
Check as each behavior occurs.

TEACHER:_____ SITE:_____ OBSERVER:_____
SCHOOL:_____ DATE:_____ TOTAL TIME SPENT:_____

PREPARATION

OBSERVER TIME:____

PLAN:
Teacher announces:
____ where
____ when
____ why

STUDENT INTEREST:
Teacher:
____ explains what pupils should learn or notice
____ answers questions
Students ask questions:
(tally)_____

OBJECTIVE:
Teacher:
____ has objective
____ gives an assignment
____ checks assignment

FIELD TRIP

OBSERVER TIME:____

REVIEW:
Teacher:
____ relates trip to classwork
____ explains what pupils should learn or notice

ASSIGNMENT:
Teacher:
____ checks assignment
____ gives assignment

Tally student questions asked and answered (by teacher):_____

FOLLOW-UP

OBSERVER TIME:____

REVIEW:
Teacher:
____ relates trip to classwork
____ explains what pupils should learn or notice
____ discusses with pupils

ACTION:
Teacher:
____ gives assignment
____ collects assignment

TUCSON MODEL CITIES
CAREER EDUCATION PROGRAM

WORLD OF WORK CHECKLIST
Check as each behavior occurs.

TEACHER: _____ OBSERVER: _____ UNIT: _____

SCHOOL: _____ DATE: _____ ACTIVITY: _____

_____ Teacher explains purpose of activity.

_____ Teacher relates to student reading or activity.

_____ Teacher explains equipment and supplies.

_____ Teacher demonstrates (optional).

_____ Teacher references directions.

_____ Teacher gives assignment.

_____ Teacher mentions safety factors.

_____ Teacher monitors work.

_____ Teacher explains clean-up.

_____ Teacher monitors clean-up activities.

COMMENTS:

TUCSON MODEL CITIES
CAREER EDUCATION PROGRAM

VIDEO-TAPE CHECKLIST
Check as each behavior occurs.

TEACHER:_____ OBSERVER:_____ TITLE:_____

SCHOOL:_____ DATE:_____

INTRODUCTION

Teacher:
____ gives title or subject
____ relates to other information
____ tells pupils what to learn or notice
____ asks for questions
____ answers questions

FOLLOW-UP

Teacher:
____ asks for questions
____ answers questions
____ relates to other information
____ gives assignment (optional)
    ____ written or reading
    ____ practical
    ____ discussion

Tally as behavior occurs:

Teacher relates information to individual(s):_____

Besides teacher behavior, student behavior must also be measured at the junior high level. A criterion referenced test to be used on a pre-post test basis has been developed by the project staff, including input from both teachers, the internal evaluator, and the resource person. This test has been pilot tested and is appendiced in Appendix C.

It should be noted that the full Quality Assurance Model of Process Evaluation could be most easily applied at the junior high level because of the use of a structured curriculum. Interim assessment measures would need to be identified for periodic administration, however.

At the Senior High School level each of the three aspects of the project (Job Placement Center, the Career Information Center and the Drop-out Program) can include different activities to assure quality implementation. Public relations, both internally and externally, is another important aspect of the Program which must be considered at this level.

The Job Placement aspect of the program is difficult to quantify, as so much depends on the personalities, instincts and experiences of the people involved in student counseling and placement. Quality implementation depends heavily on counseling. Specific areas of needed counseling include personal and employment related for students, follow-up with students after they are placed in jobs, and with employers regarding placement of students in employment situations. Variables in student motivation and background are important too, as they are in any counseling situation. After a student has been placed in a position, close personal contact must be maintained between the counselor and the

student; follow up visits must be made regularly and by the same counselor whenever possible.

The following factors are hypothesized as correlates of success:

1. Students' attitudes toward their work must be identified.
2. Students' skills in particular job areas must be identified.
3. Jobs should be found for students, rather than jobs being found, and then students being sought to fill them.
4. The same student should be visited by the same counselor each time on job visits.
5. Two or three jobs should be visited by the counselor each week, and four to eight supervisors' reports should be collected on each student throughout the year.

In an effort to quantify these factors into a group of recommended behaviors, a filing system was developed. File I contains students' pre-employment files, File II contains students' employment files and File III contains "dead files". The use of this filing system and the appropriate instruments, behaviors, etc., along with "good" counseling techniques, should help assure the quality installation of the Job Placement Center. This system is currently being pilot-tested in the Tucson Program, and seems to be successful. The following two pages show a cover sheet for a student folder in each of the first two files. As contact is broken with a student, his file is moved to the dead file. For follow-up purposes, files should be reviewed on a "regular" basis - possibly quarterly. In the "dead file", all students who are "found" can have a short report written, dated and added to the file. Longitudinal data thus becomes available. Comments on all cover sheets should be brief, and documentation should appear in the folder itself.

In addition to the student files, an appointment book of contracts made by Job Placement Center personnel should be kept and summarized monthly. This will allow for the further identification of "trends" or factors leading to success.

CAREER EDUCATION PROGRAM - JOB PLACEMENT

PRE-EMPLOYMENT

Student Name_____ Counselor_____

DATE	NUMBER OR INITIAL IF FURTHER INFORMATION IN FILE	ACTIVITY OR DOCUMENT
		Application Initiated by: Student___ Parent___ Teacher___ Other___
		Initial Impression: Positive___ Negative___ Comments in File___ So-so___
_____ Given _____ _____ Reviewed with Student_____ _____ Action Necessary_____ _____ Action Taken _____ _____ Filed _____		Attitude Inventory Title:_____
_____ Given _____ _____ Reviewed with Student_____ _____ Filed _____		Aptitude Test(s) Title(s):_____
		Employment Contacts Made Employer(s):
		Interviews Completed Employer(s):
_____ Action Necessary_____ _____ Action Taken _____		Reason for Refusal
_____ Planned _____ _____ Made_____ _____ Planned_____ _____ Made_____		Home Visits
		Phone Calls from Parents

Comments:

Student Name_____ Counselor_____

CAREER EDUCATION JOB PLACEMENT PROGRAM

EMPLOYMENT

Student Name:_____ Counselor:_____

Employer*:_____

Direct Supervisor:_____ Phone:_____

Job Visits (Date and Initial):

1._____ 2._____ 3._____ 4._____ 5._____ 6._____ 7._____ 8._____ 9._____ 10._____

Comments (Report in File):

1. Positive___ So-so___ Negative___
2. Positive___ So-so___ Negative___
3. Positive___ So-so___ Negative___
4. Positive___ So-so___ Negative___
5. Positive___ So-so___ Negative___
6. Positive___ So-so___ Negative___
7. Positive___ So-so___ Negative___
8. Positive___ So-so___ Negative___
9. Positive___ So-so___ Negative___
10. Positive___ So-so___ Negative___

Supervisor's Reports

1. Date:_____ Date Reviewed with Student:_____ Action Needed: Yes No
   Action Taken:
2. Date:_____ Date Reviewed with Student:_____ Action Needed: Yes No
   Action Taken:
3. Date:_____ Date Reviewed with Student:_____ Action Needed: Yes No
   Action Taken:
4. Date:_____ Date Reviewed with Student:_____ Action Needed: Yes No
   Action Taken:
5. Date:_____ Date Reviewed with Student:_____ Action Needed: Yes No
   Action Taken:
6. Date:_____ Date Reviewed with Student:_____ Action Needed: Yes No
   Action Taken:
7. Date:_____ Date Reviewed with Student:_____ Action Needed: Yes No
   Action Taken:
8. Date:_____ Date Reviewed with Student:_____ Action Needed: Yes No
   Action Taken:

Student Name:_____ Counselor:_____

* New file with each change

Since the goals of the Career Information Center are different than those of the Job Placement Center, different success factors leading to the quality implementation of the program can be identified. The first of these factors are those leading to the successful *operation* of the Center, and are found on page 17 . Other success factors include behaviors practiced by both classroom teachers at the senior high level and behaviors used by personnel in the Career Information Center. In order to further implement the Quality Assurance Model, observation schedules should be developed as described previously on page 7.

In addition to teacher behaviors, student success must also be measured. A pre-post test format has been design-tested and pilot-tested in the Tucson project. Although revisions are still being made in the test to assure validity and reliability, this instrument is available.

TUCSON MODEL CITIES
CAREER EDUCATION PROGRAM

Factors Leading to Successful Operation of the Career Information Center

1. Files should be color coded, and one person should do ALL re-filing.

2. The person coordinating the Center must establish a comfortable relationship with the classroom teachers. Specifically, some teachers would rather their classes were not interrupted, while others don't mind as much. In addition, he must "be very explicit to teachers - pre and post test".

3. In arranging for resource speakers, publicize the speaker for two weeks before the scheduled time, remind the speaker, plan for the unexpected, survey students to ascertain which speakers are most interesting, and which careers students are most interested in discussing.

4. In using films relative to the Career Information Center, publish a film list each semester, use films related to the overall program goals, find out which films students like best, explain the purpose of the film before showing it, and review the film with the students after they have seen it.

5. In planning field trips, remind the business or person to be visited of the exact time and date, plan for the unexpected in terms of scheduling and survey students to ascertain most productive and enjoyable field trips.

6. In planning the Career Information Center, buy materials which relate best to overall goals, and buy easy to use materials at the right reading level(s). Some hard bound books may not be used by the students while pamphlets and paperback books may be more popular. Arrange the Center as simply as possible and arrange scheduling to include those students who transfer into and from English classes.

7. In publicizing the Center to other school personnel, they should know as much about the Center and how to use it and help the students use it as soon as possible in the school year.

Dropout Program:

The goals of the Drop-Out Program include giving high school drop-outs a chance to learn marketable skills. Although the nursing skill development unit has been discontinued, the welding unit and the office machines unit are being well implemented.

Several factors are included in the quality installation of the Drop-Out Program units including identification of:

a. student entry level,

b. student need(s),

c. skills to meet,

d. projected time schedule,

e. actual time schedule.

The Skills Development Checklists on pages 18a and 18b, if implemented, will assist in assuring program quality through documented identification of those factors listed above. These are developed by the student and the teacher, maintained by the skills development teacher, and monitored by the resource person. Continual progress may be observed and documented as checklists are easily updated.

Because of the small teacher/student ratio, and the need for individualized instruction, it is recommended a teacher observation schedule or monitoring form not be developed, although use might be made of a self checklist.

WELDING

Although The Skills Development Checklist assumes little if any prior knowledge of welding technique, and although a student may enter at any level, minimum entry level for the Drop-Out program is a knowledge of acetylene welding, use of a hand cutting torch and successful completion of:

a. a flat pad,

b. a flat butt,

c. a flat fillet,

d. a flat lap,

e. a flat corner.

Each student progresses at his own rate, learning a certain technique, then perfecting that technique. The use of different machinery and different materials then adds to the students' "worth" in the labor market.

A specific "successful exit" behavior cannot be specified for the welding component. Each student's needs are different, so "successful exit" behavior depends on the specific situation.

WELDING SKILLS DEVELOPMENT CHECKLIST

STUDENT NAME	Flat pad *	Flat butt *	Flat fillet*	Flat lap *	Flat corner *	Hor. pad	Hor. butt	Hor. fillet	Hor. lap	Hor. corner	Vert. pad	Vert. butt	Vert. fillet	Vert. lap	Vert. corner	Overhead pad	Overhead butt w/backup strip	Overhead fillet	Overhead lap	Overhead corner	Pipe butt	Pipe elbow	Pipe 45°	Pipe tee	S. soldering and cop. pipe	Tig pad	Tig butt	Tig fillet	Tig corner	Mig 200 Amps--All positions	Mig 300 Amps--All positions and aluminum	Mig 500 Amps--All positions and core wire	Mech Tig Unit	ARCAIR	Nickel ARC	Special Welding processes	Brazing	Vert. up with movement	Hand cutting torch *	Mech cutting torch	Personal project **	VICA*** Project **

* Required entry level skills

** As it occurs tasks are used as learning experiences

*** Vocational Industrial Clubs of America

SUMMARY AND IMPLICATIONS

There are several implications and outcomes which might result from the installation of the Quality Assurance Model of Process Evaluation. For example, the development of classroom observation instruments leads to the involvement of the teacher in the development and evaluation process. They may be developed at any level, and may be correlated with student success to ascertain which teacher behaviors are actually related to student success. After the latter has been established, the teacher training aspects are obvious. In addition, self-observation of video-tapes by teachers and counselors can easily be added, especially at the junior high and senior high levels. Field trip and video-tape checklists are also generalizable to other grade levels.

One problem found in all high schools is that of high school drop outs being unemployable. If the Skills Development curricula are employed, and possibly expanded, the implications are obvious: students who can be enrolled can be taught a marketable skill regardless of age or academic standing, or individual need.

In conclusion, the Tucson Model Cities Exemplary Vocational Education Program has implemented and pilot-tested a Quality Assurance system related to their Career Education Program. They have also given insights into other techniques which might prove helpful in the quality implementation of this program in other sites or situations.

Any other district or agency attempting this program and attempting to maximize student success through implementation techniques has a good chance of success because of the pilot-testing completed by the Tucson Program.

APPENDIX A - Sample Test

APPENDIX B - Tucson Public Schools Memo

APPENDIX C - Junior High Test

APPENDIX D - Senior High Career Information Center Test

Lester and Luisa

Pictures and Problems

PURPOSE:

The purpose of any test is, of course, to see what someone has learned about a given subject. The purpose of giving short quizes after a teacher has used each Career Education kit is to determine the depth of understanding the children have about a given topic, and the careers related to it.

One possibility is the administration of a pretest and a post-test, while the other is the administration of two tests, one covered by the kit and one not covered by the kit. Because of the flexibility of the kits, the questions or situations on the test must also be generalizable and hopefully reflect affective and cognitive notions.

INTERPRETATION:

Interpretation of any test is difficult, as everyone may have been sick that day or the teacher may have successfully taught a completely different concept.

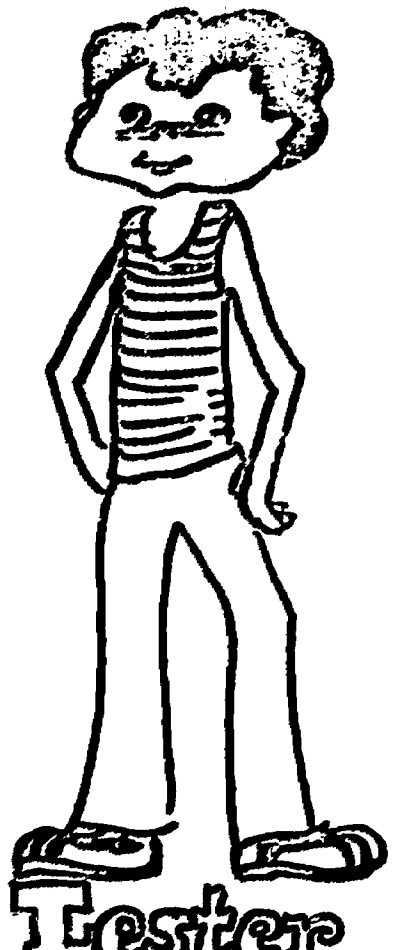
The administration and scoring of periodic "content tests" during the course of the program could provide some valuable information however. Are the children learning about careers? Are some methods and techniques more successful in teaching career awareness than others? Test should be interpreted to see if individual classes are meeting goals, established by the teacher or the programs; and also to determine which kits most successfully teach about the number of careers that are available.

METHOD:

Although either a written or oral test could be administered, there are ways to make tests more interesting to both the students and the teachers. One is to use cartoon characters to present a problem situation which the students must then solve. The children could be tested orally, individually, in small groups, in large groups, or one test to a committee, depending on the individual teacher's philosophy and information needs. The characters on the next page have been developed and pilot-tested and are popular with children. Following the cartoons are scripts for the type of test questions which could relate to the use of the Career Education kits.

Luisa

This is Luisa, Lester's little sister. She is in the 3rd grade and likes school.



This is Lester. He is in the 6th grade. He tries very hard in school but he doesn't like it very much. He does like his teacher, and that makes it easier.

BUTCH

This is Butch, and he is Lester's best friend. He hates school but he goes anyway.

WILFRED

This is Wilfred. He is very smart in school and gets all A's. He is Lester's next best friend after Butch.

GRADES K-3: I'm going to tell you (help you read) some stories about Luisa and her brother Lester. After I read the story then you can help Luisa and the other kids solve their problem (answer their question).

GRADES 4-6: We're going to read some stories about Lester and his friends. After the story you can decide what you would do to solve their problem.

GEOLOGY

Situation I

Lester: Boy! Did we have a neat class today! It was all about rocks and dirt and stuff.

Wilfred: That was Geology.

Luisa: Hi! Can I walk home with you? What's Geololoogy?

Lester: Dummy, you can't even say it. It's ... I don't know either what it is exactly.

Lester: Do you? (pointing out)

Situation II

Butch: So you know about rocks and dirt and stuff, so what? What good is that? What good is geology? I's rather eat or play football (to Lester), rocks are best to throw at cans.

Wilfred: My father works with geology and geologists and he's important and it's neat because they pay him a lot of money.

Butch: What does he do? What jobs could I have if I like geology and rocks?

PHOTO-JOURNALISM

Butch: Hey, you guys, look over there. That guy has a camera and he's taking pictures. Who do you suppose he is? What do you think he does?

Wilfred: He could be lots of things, or have lots of jobs.

Lester: Like what? What could he be doing?

WEATHER KIT

Situation I

Louisa: It would be fun to be a weatherlady. I like to look at the clouds and watch the rainbows and see the sun.

Wilfred: So what, that's a dumb thing to do.

Luisa: You just wait until I grow up! I'll be able to have lots of jobs with weather! Like I could ...

Situation II

Butch: Hey, Lester, we're going on a picnic with hot dogs and potato salad and cokes and ice cream if it doesn't rain, and my mom says you can come if it doesn't rain and your mom says yes.

Lester: My mom won't care, but how can we know if it's going to rain?

Butch: How does the weatherman know what the weather will be like?

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TO: Teachers, K - 12

SUBJECT: Guidelines for Field Trips

A limited number of field trips are available to the schools participating in the Exemplary Program. Listed below are procedures which have been developed in cooperation with the project supervisor and his staff:

1. Teacher - Pupil Planning:

   a. Plan type of trip.
   b. Gain students' interest in the trip.
   c. Develop an objective for the trip:

      1. Development of an awareness of different workers.
      2. Observations of working conditions.
      3. Development of an awareness of the interdependence of workers.

2. Pupil Preparation:

   a. Have students list:

      1. Working conditions.
      2. Duties of workers.
      3. Appropriate clothes for type of job.
      4. Number of workers.
      5. Safety procedures to take.

   b. Have students find out if workers enjoy the kind of work they are doing.

3. Follow - up:

   a. Did the students enjoy the trip?
   b. Would you recommend the trip for others? Why or why not?
   c. Were all questions answered?
   d. Did students observe any type of work they would enjoy doing?
   e. What did the students learn on this trip that had not been learned in the classroom?

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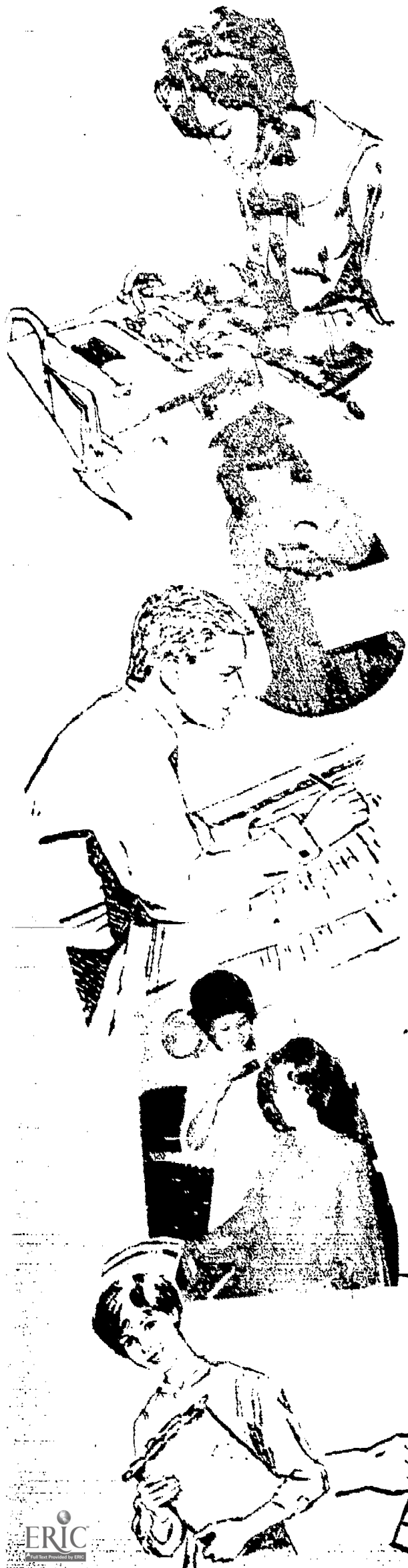

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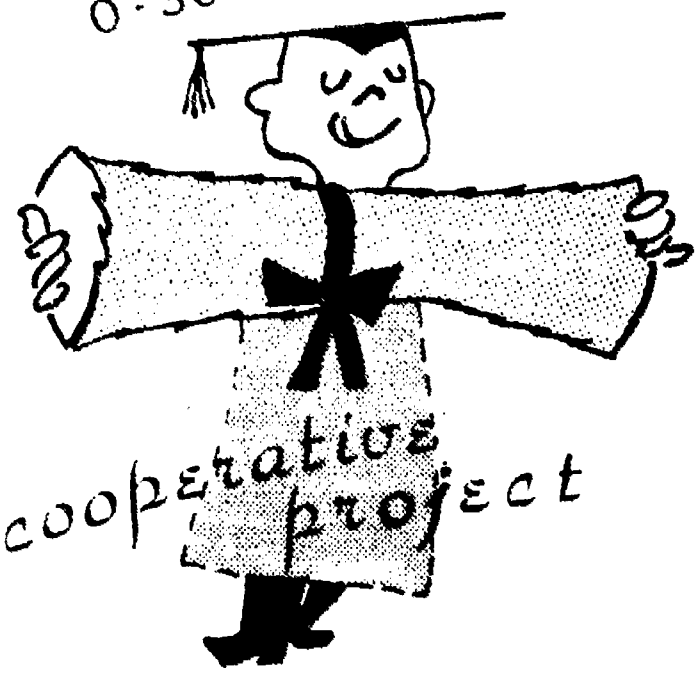

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TUCSON PUBLIC SCHOOLS DISTRICT No. 1
TUCSON MODEL CITIES
ARIZONA STATE DIVISION of VOCATIONAL EDUCATION
DEPARTMENT of HEALTH, EDUCATION and WELFARE