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ABSTRACT

The report describes a career education program for 20 gifted and talented twelfth grade students which incorporated a guidance laboratory, use of university mentors in a student's chosen field, and an internship period. Detailed are participant characteristics, identification methods, and program evaluation findings. Changes made during the project are reviewed and dissemination activities discussed. Among 13 appendixes which comprise nearly one-half the report are sample project forms and a third party evaluation. (CL)

Career Education for Gifted & Talented Students

A unique learning opportunity for gifted and talented high school seniors.

Final Report

June 1977

Center for Career Development & Occupational Preparation
College of Education
Texas A&M University
College Station, Texas 77843

Final Report

on the

"Development of an Exemplary Career Education Model for the Gifted & Talented"

by

Christopher Borman
Sharon Colson
Mary Katherine Evers
Robert Godsey
Betty Cummings Mayfield
William R. Nash

funded by the

United States Office of Education
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July 1, 1976 through June 30, 1977

Center for Career Development and Occupational Preparation
College of Education
Texas A&M University
College Station, Texas 77843

Acknowledgements

The project staff wishes to express its appreciation to the A&M Consolidated Independent School District in College Station, Texas, for its vision in entering into the project and for the flexibility that it has provided during the operation of the project. The Assistant Superintendent, Dr. Richard Burnett; the High School Administrative Director, Mr. Vernon Files; and the high school counselors, Mr. Joe Wiese and Mr. Buddy Denton were tremendously helpful in the achievement of goals of the project.

Many people contributed to the success of the project so that it is not possible to list them all. Certainly, the project staff and participants are especially grateful to the professors at Texas A&M University and to the various community businesses and agencies that made spaces in their daily schedules for the career development of twenty gifted and talented high school students.

Preface

This project focused on a differentiated career education approach that embodied a high level of cognitive and affective concepts and processes beyond those normally provided in the regular school curriculum. Instructional strategies which accommodated the unique learning styles of the gifted and talented were provided that combined in-depth self-investigation with mentorship/internship experiences.

The exemplary model that has been developed has demonstrated effective methods and techniques for providing career education to gifted and talented students at the Senior High level. This model, if replicated, can serve as an effective approach that may be used by a school district to serve the career development needs of this special population.

Project Co-Directors:	Dr. Christopher Borman Dr. William R. Nash
Principal Investigator:	Sharon Colson
Research Assistant:	Robert Godsey
Interns:	Mary Katherine Evers Betty Cummings Mayfield
Project Secretary:	Doris Gutcher

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Career Education Program
Project Performance Report

1. Project Number: 554AH60528

2. Grant Number: 300760282

3. Nature of the Report: Final

4. Project Title: "Development of an Exemplary Career Education Model for the Gifted & Talented"

5. Period Covered by this Report: July 1, 1976 to June 30, 1977

6. Category of Project (as specified in 45 CFR 160 d 5 and H 160 d 11):

Populations

7. Name of Project Director: Co-Directors, Dr. Christopher Borman and Dr. William R. Nash

8. Name and Address of Grantee/Assistance Contractor Institution:

Texas A&M Research Foundation
P.O. Faculty Exchange H
College Station, Texas 77843

Telephone: Area Code: 713 Number: 846-7731

9. Major Activities.

The major accomplishments under each objective of the project are as follows:

Objective #1

> The career guidance laboratory in the Department of Educational Psychology at Texas A&M University will be expanded to include additional occupational information, materials, simulation and games, testing materials and devices to provide sufficient in-depth self-evaluation and investigation by gifted and talented students during a Guidance Laboratory Phase of the program.

Much of the month of July 1976 (first month of the project) was spent in reviewing current literature and assessing types of materials to be used during the Guidance Laboratory Phase. The guidance laboratory in the Department of Educational Psychology at Texas A&M had some career guidance materials, but such items as College Board's Decisions and Outcomes, Lovejoy's College Guides, American Universities and Colleges, books and materials from professional societies and organizations, assorted tests (i.e., SDS, Strong-Campbell Interest Inventory, Work Values Inventory, Career Maturity Inventory and Edwards Personal Preference Schedule) were added. Materials for rent or loan such as films and video tapes were also used. Project records reflect materials existing in the Educational Psychology guidance laboratory prior to the project and materials that were either purchased with project funds or obtained free of charge from organizations and associations. Materials in the Guidance Laboratory proved very sufficient for the first phase of the project (Guidance Laboratory Experience)

Resource materials were used during Phases 2 and 3 of the project as well. Even though the students were no longer attending the lab formally, their interest in obtaining information about specific career fields was maintained. Additions were made to the resource collection during the year

as new publications became available. The resource files were moved to the staff offices at the close of Phase 1 so that participants could have easy access to them.

Summaries of the evaluation instruments and results of testing procedures for this phase are included in the evaluation section of this report (page 24 and Appendix B).

Objective #2

> Professors at Texas A&M University will be selected to serve as Mentors to the participants and conduct appropriate research experiences, laboratory, and/or field experiences during a Mentorship Laboratory Phase of the program.

The Guidance Laboratory Experience enabled the participants in the project to isolate a career interest area that seemed to offer opportunity to the individual student for accomplishment and fulfillment. It is that career area the Mentorship Laboratory Experience addressed.

During the final two weeks of the Guidance Laboratory, the students made decisions concerning first and second career field choices. These choices served as the basis for scheduling interview appointments for the students (participants) with a professor(s) of advanced studies in the career fields indicated. Mentorship assignments were as follows:

Student	Career Field(s)	Mentor
Scott Saunders	Theater Arts	Robert Wenck, Director Theater Arts
Randall Ray	Law	Jack Woods, Attorney Ass't. Professor Political Science Dept.
Wallace Harwood	Electrical Engr. Data Processing	Charles Adams, System Analyst 3/4 Time Data Processing 1/4 Time Electrical Engr.

Student	Career Field(s)	Mentor
Meg Bury Jacki Freund	Music Therapy Psychology	Arnold LeUnes, Ass't. Prof. Dept. of Psychology
Julia Straw	Education	James Kracht, Ass't. Prof. Educational Curriculum & Instruction Dept.
Mark Dixon Damon Buffington	Civil Engineering	Leonard D. Webb, Assoc. Prof. Civil Engineering Dept.
Karen Aberth	Physics	Donald Naugle, Ass't. Prof. Physics Dept.
John Vastano	Nuclear Physics	David Youngblood, Assoc. Prof. Cyclotron Institute
Dennis Chester	Wildlife Science	James Teer, Dept. Head Wildlife & Fisheries Dept.
Pricilla Fiffes	Music	Robert Boone Music Coordinator
Helen Marquis	Entertainment	Hal Gaines, Assoc. Director Memorial Student Center
Lauren Stacell Mike Earle Karen Mallett Martha Lambert	Merchandising Business Management Personnel Management Marketing	Samuel Gillespie, Dept. Head Marketing Dept.

Each placement could be a novel in itself. The university professors provided each student with a "close-up" of his/her particular field. Each was careful to provide wide exposure to the area so that the student would be prepared for the decision he/she would have to make in choosing a location for Phase 3, Working Internship Experience.

Each participant in Phase 2 was required to keep a daily log of activities. The log served a two-fold purpose, (1) it provided the student with a record of accomplishments, and could be used as a reference for retrieving information gained during the mentorship, and (2) a copy of the log helped the project staff to monitor experiences of the students during this phase. Periodic visits to mentorship sites by the project staff helped to maintain -

good lines of communication. Further reporting of the commonalities and observations gleaned from the participant's log files are reported in the evaluation section of this report as well as evaluation procedures that were conducted during this phase (page 46).

Seminars were held every three weeks during the Mentorship Phase. These seminars provided a time for sharing of experiences among the participants and helped to maintain the comaraderie within the group that had developed during the Guidance Laboratory Phase. It should be noted that all of the participants (15) and all of the alternates (5) participated in both Phases 1 and 2 of the project.

Objective #3

> Business, industry, and labor individuals will be selected to conduct actual work experiences for the participants during an Internship Phase of the program.

The Working Internship Experience (Phase 3 of the project) began on February 28, 1977, and continued through May 27. Just as the Mentorship Phase had built upon the Guidance Laboratory Phase, so the Working Internship Phase built upon the Mentorship Phase.

Two weeks prior to completion of Phase 2, each participant was asked to identify a specific career area that he/she would like to pursue during the next phase of the project. This choice flowed from the broad exposure to the career fields to which each was assigned during the Mentorship Phase (see Table 1, page 5).

While the project proposal had not included full participation of the alternates, they had all been served during Phases 1 and 2. It was reported to the students that only the 15 full participants could be paid during the Working Internship Phase because of budget limitations;

Table 1

Career Interests of Participants

Student Name	Sex	Areas of interest early in Guidance Lab	Career choices reported on during middle of Lab	Choice for Mentorship	Choice for Internship
*Aberth	F	Math, Physics, Biology	Physics	Physics	
Buffington	M	Architecture, Engineering (petroleum or architectural) Aerospace	Civil Engineering Architecture	Civil Engineering	Texas Transportation Institute
Bury	F	Music Therapist, Special Education, Forestry	Music Therapy, Forestry	Psychology (still wants music therapy)	Brazos Valley Mental Health Center
Chester	M	Forestry, Radio Disc-Jockey, Woodworking	Wildlife & Fisheries Forestry	Wildlife & Fisheries	LGL, Ltd., U.S. Inc. (Environmentalists)
Crawford	F	Communications, Fashion design, Forestry	Recreation & Parks, Veterinary Medicine, Radio & TV	Television Broadcasting	Sports Caster KAMU-TV
**Dixon	M	Engineering, Transportation, Architecture	Civil Engineering, Mechanical Engineering	Civil Engineering	Spencer Buchannan & Assoc. (Engineers)
*Earle	M	Management, Business, Wildlife	Retail Photography/ Business, Import/ Export business	Marketing	
Files	F	Teaching, Counseling, Forestry	Music, Camp Counseling	Music	Band (A&M Consolidated Middle School)
**Freund	F	Psychology	Social Work, Psychology	Psychology	Special Education (A&M Middle School)
Harwood	M	Engineering, Architecture, Electronics	Electrical Engineering Computer Science	Computer Science/ Electrical Engr	Agency Records Control (Computers)
Lambert	F	Civil Engineering, T.V. reporter	Marketing	Marketing	Ruth's Fashions
Mallett	F	Computer Science, Medicine, Personnel Management	Personnel Work, Bank officer	Marketing	Texas Employment Commission
Marquis	F	Psychology, Performing musician, Public contact	Performing Arts, Public relations	University Entertainment Center	Black Hat Saloon (Night Club)
Parmer	M	Journalist, Sound design Biologist	Language Specialist, Journalism	Television Broadcasting	Sports Caster KAMU-TV
Plapp	F	Political Science, Journalist, Writer	Political Science, Journalism	Television Broadcasting	Radio Station KTAM & KORA
Ray	M	Journalism Politics Mathematics	Law Math	Political Science Law	Brazos County Attorney Office
Saunders	M	High School Teacher, Law Enforcement Archaeologist	Dramatic Arts	Drama	Radio Station WTAW
Stacell	F	Psychology, Art, Fashion	Marketing--Fashion Merchandising, Environmental Design	Marketing	Gentlemen's Quarter (Men's Furnishings)
*Straw	F	Music, Math, Education	Education, Psychiatry	Education	
***Vastano	M	Physician, Historian Physicist	Particle Physicist Physicist	Physics	

[illegible]ate

*[illegible]ate who participated in Internship

**[illegible]ipant who did not participate in Internship

however, if any participant became unable to participate in Phase 3, the first alternate could take his/her place. Further, any alternate that would like to participate in Phase 3 as a volunteer would be served by the project.

One participant was unable to participate in Phase 3 because of course requirements and extra-curricular commitments at the high school. The first alternate took his place. One alternate chose to participate as a volunteer during Phase 3 and was placed accordingly.

The Working Internship Phase was as diverse in placements as the Mentorship Experience Phase. Since no prearranged placements had been set up, it was possible to tailor these to the needs of the individual student. It placed a great deal of pressure on the project staff in terms of time, but each placement was made successfully.

Each student was interviewed by the internship site supervisor prior to placement in much the same way a new employee would be screened by a company. Only when both the student and the supervisor were in agreement, was the placement made.

Working Internship placements were as follows:

Student	Supervisor	Location
Damon Buffington	Dr. Gene Booth	Texas Transportation Institute Texas A&M University
Meg Bury	Jack D. Williams	Central Brazos Valley Mental Health Center Bryan, Texas
Dennis Chester	Benny J. Gallaway	LGL Limited-U.S. Inc. Bryan, Texas
Julia Crawford	Raymond Ho	KAMU Television Texas A&M University

Student	Supervisor	Location
Mark Dixon	Ed Burkhart	Spencer Buchannan & Associates Bryan, Texas
Pricilla Files	Anna Marie Guffey.	A&M Middle School College Station, Texas
Jacki Freund	Jim W. Ross	A&M Middle School College Station, Texas
Wallace Harwood	David Nobles	Agency Records Control Bryan, Texas
Karen Mallett	Charles Gillespie	Texas Employment Commission Bryan, Texas
Martha Lambert	B. F. Vance	Ruth's Fashions Bryan, Texas
Helen Marquis	John Paul Jones	Black Hat Saloon College Station, Texas
Dwayne Parsons	Mel Chastain	KAMU Television Texas A&M University
Amy Plapp	Dan Acree	Radio Stations KTAM & KORA Bryan, Texas
Randall Ray	Roland Searcy	County Attorney Bryan, Texas
Scott Saunders	Bob G. Hill	Radio Station WTAW Bryan, Texas
Lauren Stacell	Philip Tremont	Gentlemen's Quarter Bryan, Texas

Table 1 (page 5) provides information on each student regarding the flow of experiences during the three phases of the project. Evaluation of the data collected during this phase is included in the evaluation section of this report.

Objective #4

> Graduate student Research Associates will be selected and will demonstrate expertise in appropriate career guidance techniques for the gifted and talented, including conducting evaluations of participants' Guidance Laboratory learning assignments, developing community relationships, and in supervising Mentorship and Internship arrangements.

Because of a better than 30% budget cut when the project was funded, only one paid Research Associate was retained in the revised budget. However, two graduate students in the College of Education at Texas A&M University have worked on this project as unpaid interns because of their interest in career education, gifted and talented students, and for the experience they could gain through this project. Robert Godsey, a doctoral student in Educational Psychology, was the paid Research Associate. The Research Associate and the Interns have shown keen interest in the project and have had or developed the needed competencies to meet their reponsibilities to the project. Reports of this supervision are further highlighted on pages 23, 49, and 60 in the evaluation section of this report.

Objective #5

> Identification criteria will be established for selection of students into the program from the target high school, including test scores, teacher recommendations, and classroom performance.

The target audience of the project was determined to be gifted and talented high school seniors enrolled in A&M Consolidated High School, College Station, Texas. Screening for such programs typically begins with a referral system designed to identify all possible candidates followed by employment of either single or multiple criteria assessment for identification and selection. Generally, a multiple criteria approach is recommended by research on the topic and is particularly desirable in an instance where limited positions are available for a relatively large population of gifted and talented students. This was the case of the target high school. For example, the senior class numbered approximately 160 students, eleven of whom qualified as National Merit Finalists which is a larger percentage of the class than might be expected.

Referral for Screening (Identification)

In August, a referral brochure was printed (see Appendix A) which described the project and solicited referrals of possible participants. It was made available to all students in the senior class, teachers and administrators in the school, parents and interested parties from the community. A meeting was held at the school site to further explain the project and answer questions. The project was advertised through local media (TV, radio, and newspapers), also. Referrals were accepted from all sources including students referring themselves. Ultimately, forty-six students were referred, forty-two of whom chose to participate in the screening process (the remaining four were not interested in the project). The high school has a low percentage of minority students (15%) and none were referred. Sex breakdown was 18 males and 24 females.

Screening Process (Identification)

As previously mentioned, it was decided that multiple criteria should be utilized in screening, and thus, the forty-two students were evaluated in the following areas through processes indicated:

a) GENERAL INTELLECTUAL ABILITY: The Lorge-Thorndike Intelligence Tests College Edition, Verbal and Non-verbal Forms, were administered.

b) CREATIVE THINKING ABILITY: The Torrance Tests of Creative Thinking, Verbal and Non-verbal Forms, were administered.

c) ACADEMIC ABILITY: The Iowa Tests of Educational Development were administered.

d) SPECIFIC TALENT ABILITY: Each student identified a talent area and a mixture of testing and expert judgement was utilized.

If testing was efficient, such instruments as the Differential Aptitude Test/Mechanical Abilities Test were administered. In the case of areas such as drama and music, auditions were conducted by experts. In art, an expert rated products of the students. In business leadership, a local bank president (recently selected as one of ten outstanding business leaders in Texas) interviewed students.

e) SCHOOL SUCCESS: Each student's cumulative grade average for high school years was recorded from school documents.

f) BEHAVIORAL CHARACTERISTICS: The Renzulli/Hartman Behavioral Characteristics Scale (which yields ratings on leadership, creativity, and learner and motivational characteristics) was filled out by teachers chosen by the students.

g) PAST ACCOMPLISHMENTS: The student filled out a Personal Information Questionnaire listing all past accomplishments, such as honors and awards, club and community activities, work experiences, and significant life experiences.

For final selection, a point-weighting-system was employed for performances in each area and point totals calculated for each student (see Appendix B). The weighting system was as follows:

High:	3 points
Moderate:	2 points
Low:	1 point
Other:	0 points

In each area, cutoffs were set for these weights. For example, intelligence test cutoffs are listed below:

High:	132 IQ and above
Moderate:	124 IQ through 131 IQ
Low:	118 IQ through 123 IQ
Other:	117 IQ and below.

Consistency across test instruments was maintained through setting weight cutoffs at scores representing approximately the same percentiles from norms. Experts conducting auditions, judgements, and interviews rated students on scales and provided a summary judgement of high, moderate, low or no potential. Weight cutoffs were set for the Behavioral Characteristics Scale and high school grade averages. Finally, two of the staff rated the Personal Information Questionnaires (see Appendix C) and produced judgements on the quality of past accomplishments as being high, moderate, low, or no significant number.

The last step was to total points across the criteria and rank students according to these totals (see Appendix B). The fifteen highest students became full participants and the next five, alternates. One student selected decided not to join the project due to numerous other activities and was replaced by the next highest. Sex breakdown on participants was 9 males and 11 females.

Objective #6

> Pre-Program Information Packets will be developed about the nature of the program to permit students and parents to decide on participation in the program.

These program packets were developed and given to parents and students (15 selected participants and 5 alternates) at a pre-program informational meeting. The packets contained information on the gifted and talented project plus information about career education and the special needs of gifted and talented individuals including the following:

- Characteristics of Gifted Children
- Career Education
- Career Guidance
- Guidance Laboratory
- Mentorship Laboratory
- Working Internship
- High School Credit
- Discrimination Prohibited Disclaimer
- Disclaimer
- Brochure on Center for Career Development & Occupational Preparation
- Brochure on Career Education for Gifted & Talented Project.

Further information on the attainment of this objective is included in the Evaluation section on page 24.

Objective #7

> Mentorship and Internship Supervisors' Information Packets will be developed to initiate supervisors to this phase of the program.

An Information Packet was developed to describe the Gifted and Talented Project in general and to give specific information about both the Mentorship Phase and Internship Phase. Project staff members made appointments with prospective mentors to talk about the expectations of the project, the type of student to be assigned and to leave the packet of materials explaining the scope of the program. The same procedure was used in interviewing prospective site supervisors during Phase 3. Copies of the Mentorship/Internship Information Packets are available in the project files. Discussion of these packets is included in the evaluation section on pages 50 and 60.

Objective #8

> Evaluation of student progress during the program will be conducted to identify strengths, weaknesses, and needed modifications where problems exist.

Student progress within the program has been evidenced in a number of ways. One of the most visible has been the sequential movement through the three program phases from broad career interest areas to a specific discipline to an experience with a narrow component within that field. Table #1 on page 5 shows the progression for each student.

Another interesting aspect of the program related to Objective #8 and evidenced by Table #1, is the number of non-traditional occupations

to which the female students were attracted. All phases of the program sought to eliminate sex bias and stereotyping from the experiences of the participants.

Student progress was further noted in the pre-post testing using the Career Education Measurement System (CEMS). This series was developed from a statewide survey conducted to better define career education in terms of the attitudes, knowledge, and skills required of 17-year old students. These student behaviors or characteristics were called "student outcomes" and from this study, test instruments that would measure 177 of these learner outcomes that were judged "basic" were designed. The CEMS pre-post tests showed significant gains of the project participants. Detailed information together with a summary of the testing is presented on page 26 in the evaluation section of this report.

Objective #9

> A system of scheduling and transportation plan will be developed that will coordinate with the target school's existing scheduling program.

The A&M Consolidated School District worked very closely with the project staff in correlating transportation arrangements with the needs of the project participants.

During the development of the project proposal, estimated transportation costs were built into the proposal. When the Guidance Laboratory Phase began, records of miles traveled and driver hours were kept. The students left the high school campus at 9:30 A.M. by school bus and returned to the school at 11:30 A.M. each day. Monthly bills were submitted

to the Research Foundation in itemized form for payment by the A&M Consolidated School District's Office of Transportation.

It was thought that it would be necessary to have both morning and afternoon bus routes during the Mentorship Phase due to mentors' schedules and students' scheduling problems. This did not materialize, however. All mentorship arrangements requiring transportation were scheduled in the morning. The driver scheduled stops across the campus adjacent to mentorship assignments for both arrivals and departures.

Students furnished their own transportation during the Working Internship Phase.

Objective #10

> A "Guide to Career Education for the Gifted and Talented" will be prepared.

A monograph of the project in outline format has been prepared for use in the dissemination of information relative to replication of the project, Career Education for Gifted and Talented High School Students. The intent of the monograph is to provide an overview of each phase of the program plus task orientation and evaluation areas. This concise, sequential approach should be very useful to schools seeking a framework around which to build a program that will meet the unique needs of the multipotentialed student.

A copy of this monograph is contained in Appendix K.

Objective #11

> Each student participant will identify a career field and an alternative that offers promise of fulfillment in addition to achievement.

All participants identified career fields of primary interest and

promise for them, and the participants' selections are included in the preceeding section of this report (see Table # 1, page 5).

Objective #12

> Each student participant will be able to describe the life style required by the careers identified, the disposition and personal characteristics necessary for the careers and the responsibilities that accompany the work.

Each participant wrote detailed descriptions of the career fields they identified as first and second choices from their interest areas. Copies of the descriptions (which included a general description of the career field, occupations within the field, lifestyle associated with this work, preparation needed, future outlook for the field, reason for choice, and expected income) were retained in the student record folders maintained by project staff for each participant. These reports were monitored by the project staff in accordance with project standards. Descriptions that were lacking in information were returned to students for more study. Project staff members assisted participants in seeking information and in organizing the material.

Objective #13

> Each participant will demonstrate increased positive attitudes toward his regular school program.

Through the use of teacher and parent questionnaires, visitations with school staff, and interaction with the student participants, project staff gained evidence to indicate that the participants maintained their positive attitudes toward their regular school programs or increased their positive attitudes. Results of teacher and parent questionnaires are described in detail in the evaluation section of this report on pages 35 and 38.

Objective #14

Parents of student participants will demonstrate increased interest in and awareness of the career selection process.

This objective was modified as reported in the mid-year report. Details of this modification are listed on page 70 under Item 12, Anticipated Changes and/or Problems.

Questionnaires were mailed regularly to parents of students for evaluation purposes. Parent conferences and telephone conversations with parents provided additional information. The parents almost exclusively indicated they were pleased with the overall program. Many made suggestions for changes or improvements in the program in the comment section of the evaluation. Many of these suggestions were incorporated during the year.

Copies of the questionnaires and analysis of the results are included in the evaluation section of this report on pages 34, 35, 50, 60 - 61 and Appendix D.

10. Project Participants

The numbers included on the Participant Summary were derived from the following groups:

Senior High. All participants had reached twelfth grade standing prior to selection for the project.

Teachers. All regular classroom teachers in the high school who taught one or more of the project participants received a monthly questionnaire on each student to try to measure impact of the project and to obtain suggestions for improvement.

Counselors. The three high school counselors worked very closely with project personnel during each phase of the project and were most helpful in serving as liaison between the high school faculty and the project staff.

Administrators. The project co-directors, principal investigator, school superintendent, assistant superintendent, high school principal, secondary curriculum coordinator and the director of public relations had a very close working relationship all during the project. Without the enthusiastic support of the school's administrative staff, this program could not have enjoyed the success that it has achieved.

Members of the Business/Labor/Industry Community. These people are the internship site supervisors who were willing to provide executive type internships to project participants.

University Professors. These people are primarily professors of advanced studies at the university who provided mentorship experiences to project participants.

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

CAREER EDUCATION PROGRAM

PARTICIPANT SUMMARY

NOTE. Participants include those DIRECTLY served by the project or, in the case of most parents and persons in the business/labor industry community, who actively assist in project implementation. "Actively assist" includes efforts such as serving as consultant persons, serving on Advisory Groups, providing work ex- etc.

FORM APPROVED
OMB NO. 51-R1187

NUMBER OF PARTICIPANTS (see NOTE above) WHO ARE	RACE/ETHNICITY (all Participants including Handicapped, Gifted and Talented, Low Income)						OF THE TOTAL (column (6)) NUMBER WHO ARE...			OF THE TOTAL (column (6)) NUMBER WHO ARE...	
	AMERICAN INDIAN OR ALASKAN NATIVE (1)	ASIAN OR PACIFIC ISLANDER (2)	BLACK/ NEGRO (3)	CAUCASIAN/ WHITE (4)	HISPANIC (5)	TOTAL (sum of columns (1) through (5)) (6)	HANDICAPPED (7)	GIFTED AND TALENTED (8)	LOW INCOME (9)	MALE (10)	FEMALE (11)
STUDENTS											
ELEMENTARY (K-6)											
MIDDLE/JUNIOR HIGH (7-9)											
SENIOR HIGH (10-12)				20		20		20		9	11
2-YEAR COLLEGE											
4-YEAR COLLEGE											
ADULTS (non-matriculated)											
SUB-TOTAL				20		20		20		9	11
EDUCATIONAL PERSONNEL											
TEACHERS				18		18				8	10
COUNSELORS				3		3				2	1
ADMINISTRATORS				9		9				6	3
MEMBERS OF THE BUSINESS/ LABOR/INDUSTRY COMMUNITY		2		12		12					
PARENTS				39		39					
OTHER (specify) University Professors				13		13					
TOTAL		2		114		114					

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11. Evaluation

Because of budget restrictions, evaluation was a major responsibility of the project staff and not of the third party evaluator. However, a third party evaluator (Educational Systems Associates, Inc., 3445 Executive Center Drive, Suite 205, Austin, Texas 78731) was retained to monitor all evaluation activities. The evaluation responsibilities of Educational Systems Associates are described in Figure 1 and a copy of their evaluation report is contained in Appendix L.

One of the first responsibilities of the project staff was to develop an evaluation plan based on the project proposal and a time schedule for all evaluation activities. This evaluation plan and time schedule was as follows:

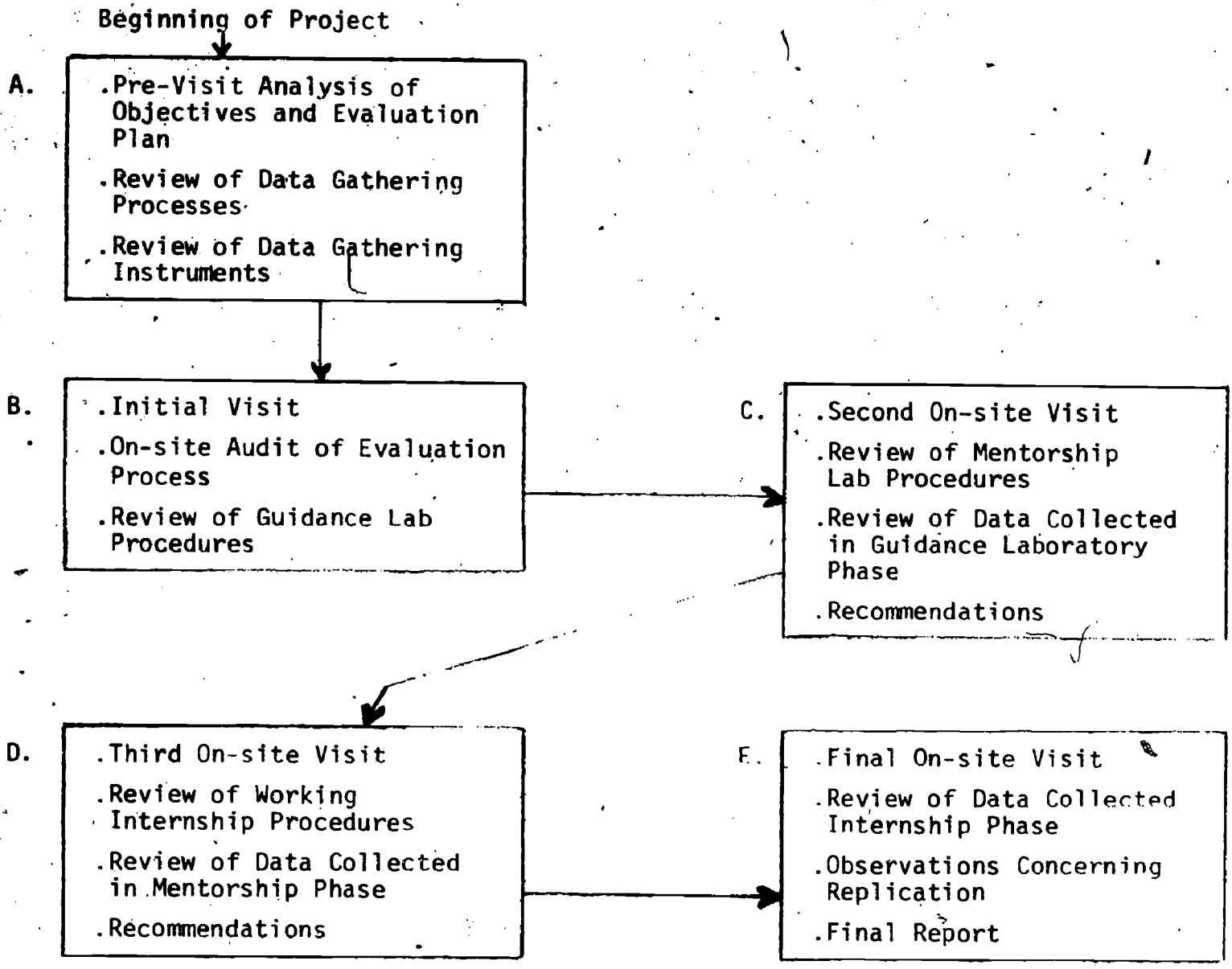
EVALUATION PLAN - GIFTED & TALENTED PROJECT

Phase 1 - Guidance Laboratory Experience

	Evaluation Activity	Date	Responsibility
1.	Records on expansion of Guidance Laboratory	Sept 1976	Colson
2.	Monitor progress of research associates & interns	July 1976 June 1977	Borman & Nash
3.	Records on participant selection process	Aug. - Sept. 1976	Nash
4.	Information packets for students & parents	Sept. - Nov. 1976	Colson, Godsey, Evers, Mayfield
5.	Profiles of participants (GEMS, Career Maturity Inventory, SDS, etc.)	Sept. - Nov. 1976	Colson, Godsey, Evers, Mayfield
6.	Parent reaction--use of Parent Questionnaire	End of Phase 1	Colson & Godsey

Figure 1

Project Evaluation Audit Plan



	Evaluation Activity	Date	Responsibility
7.	Records on participants' career choices & written descriptions of career fields chosen	End of Phase 1	Colson, Godsey, Evers, Mayfield
8.	Teacher Questionnaire	End of each month	Godsey
9.	Student Questionnaire evaluating Phase 1 activities	Weekly on Friday	Colson & Godsey
10.	Records on scheduling and transportation plan	Sept. 1976 -- June 1977	Colson

Phase 2 - Mentorship Laboratory Experience

	Evaluation Activity	Date	Responsibility
1.	Mentorship Questionnaire-- impressions of mentors & listing of student activities	Midway through Phase 2 and at the end of Phase 2	Borman, Nash, Colson
2.	Student Questionnaire evaluating Phase 2 activities	Weekly on Friday	Colson & Godsey
3.	Monitor progress of research associate & interns	July 1976 June 1977	Borman & Nash
4.	Information packet for Mentors	Nov. 1976	Colson, Godsey, Evers, Mayfield
5.	Parent reaction-- use of Parent Questionnaire	End of Phase 2	Colson & Godsey
6.	Teacher Questionnaire	End of each month	Godsey
7.	Records on scheduling and transportation plan	Sept. 1976-- June 1977	Colson

Phase 3 - Working Internship Experience

Evaluation Activity	Date	Responsibility
1. Intern Supervisor Questionnaire--impressions of supervisors & listing of student activities	Midway through Phase 3 and at the end of Phase 3	Borman, Nash, Colson
2. Student Questionnaire evaluating Phase 3 activities	Weekly on Friday	Colson & Godsey
3. Monitor progress of research associates and interns	July 1976--June 1977	Borman & Nash
4. Information packet for internship supervisors	January 1977	Colson, Godsey, Evers, Mayfield
5. Parent reaction--use of Parent Questionnaire	End of Phase 3	Colson & Godsey
6. Teacher Questionnaire	End of each month	Godsey
7. Records on scheduling and transportation plan	Sept. 1976--June 1977	Colson
8. Final Report and "Guide to Career Education for the Gifted & Talented"	May & June 1977	Borman, Nash, Colson Godsey, Evers, Mayfield

Project Evaluation Activities and Results

Using the format of the preceeding evaluation plan of the three project phases, each evaluation activity listed by number is addressed narratively in the following corresponding items.

PHASE 1 - GUIDANCE LABORATORY EXPERIENCE

1. Records on expansion of Guidance Laboratory:

Project records reflect materials existing in the Educational Psychology Guidance Laboratory prior to the project and the materials that were either purchased with project funds or obtained free of charge from organizations and associations. Materials in the Guidance Laboratory proved very sufficient

based on student use and student reaction.

2. Monitor progress of research associates:

The project had one Research Associate being paid with project funds. Two unpaid Interns who were graduate students in the College of Education at Texas A&M University volunteered their services because of their interest in the project. The paid Research Associate, Robert Godsey, is a doctoral student in the Department of Educational Psychology. Both the Interns and the Research Associate have shown keen interest in the project and have had or developed the needed competencies to meet their responsibilities to the project. The Project Co-directors and Principal Investigator monitored the progress of the Research Associate and Interns through observations and frequent meetings.

3. Records on participant selection process:

The participant selection process was described in Section 9 of this report. Forty-six students were referred, forty-two of whom chose to participate in the screening process. Student folders containing test information, audition results, information obtained from school records, etc., have been maintained for all 42 students participating in the screening process. For final selection, a point-weighting system was employed for performances in each area and point totals calculated for each student (see Appendices A, B, C). Students who participated in the screening process but who were not selected as participants or alternates were provided information on their scores on the various measurement devices and interpretations of the findings.

4. Information packets for students and parents:

Pre-program information packets were developed and given to parents and students at a pre-program informational meeting. Copies of the information packet are available in the project files as described on page 11 under Objective Number 6.

5. Profiles of participants:

Four instruments were administered to participants during the Guidance Laboratory, including (1) the Strong-Campbell Interest Inventory of the Strong Vocational Interest Blank (S.C.I.I.) (Campbell, 1974), (2) The Self-Directed Search (S.D.S.) by John L. Holland (1970), (3) the survey instrument of the Career Education Measurement Series (C.E.M.S.) developed by the Texas Education Agency (1975) and (4) the Career Maturity Inventory (C.M.I.) by John O. Crites (1973). Each instrument except the S.C.I.I. was readministered during the final weeks of the Internship.

Results from the instruments served a dual function. During the Guidance Laboratory, the instrument results aided in the career counseling process. Participants gained career awareness while the project staff gained valuable insight into the individual participant's unique needs. This insight was later utilized to pair participants with mentors and Internship supervisors.

Secondly, data generated by the instruments (together with data from instruments used in the selection process) yielded comparisons between participants as a group and norm groups upon which the instruments were standardized. Comparing pre-Guidance Lab data with post-Internship data reflected on the

participants' development throughout the school year.

The S.C.I.I., administered only during the Guidance Laboratory, assigns the participant six scores corresponding to each of six dimensions of personality including Realistic, Investigative, Artistic, Social, Enterprising and Conventional. The three personality dimensions scored highest indicated the individual's most likely areas of interest as well as his or her suggested career fields. Each examinee was given a list of appropriate occupational categories and specific occupations.

Participants also listed several favored occupations prior to the S.C.I.I. administration. The following comparisons were made between participant's self generated lists of occupations and those suggested from the S.C.I.I. Five percent of the participants had no self-generated occupations reflected on the S.C.I.I. Fifty-one percent had two occupations listed and twenty percent of the participants had three self-generated occupations reflected on the S.C.I.I. The vast majority of participants appeared to make appropriate career choices, as indicated by the S.C.I.I. results.

The examinee's career choice is less likely to change over a period of time if the following patterns emerge from his/her scores, according to S.C.I.I. literature. First, both high and low scores must occur among the six scores corresponding to the six dimensions of personality. Second, the three highest scored dimensions must be contiguous to one another on the occupational themes diagram of the S.C.I.I. The first condition was met by

only fifteen percent of the participants, but the second condition was met by sixty-three percent. Both conditions were met by only one participant. Perhaps the career choices of these gifted and talented students are likely to change over the years.

The C.E.M.S. survey instrument was administered early in the Guidance Laboratory and late in the Internship. The C.E.M.S. assessed participants' career education skills in terms of 26 sub-categories of learner outcomes. The instrument was developed by the Texas Education Agency for use in secondary school career education programs. Examinee's performance is not reported in terms of a single score. Instead, performance on each of the 26 sub-categories is rated separately as either achieving or failing to achieve set criteria.

Results from the pre-Guidance Laboratory administration of the C.E.M.S. were as follows: Four of the 20 participants met or exceeded performance criteria on all 26 categories. Nine participants fell below criteria on only one sub-category; four participants fell below criteria on three sub-categories; and one participant fell below criteria on four sub-categories.

The following results from the post-Internship administration of the C.E.M.S. is based on data from 17 of the original participants. Ten of the 17 participants met or exceeded performance criteria on all 26 sub-categories. Six participants fell below criteria on more than two sub-categories (see Table 3). Improvement on the C.E.M.S. from pre-Guidance Laboratory to

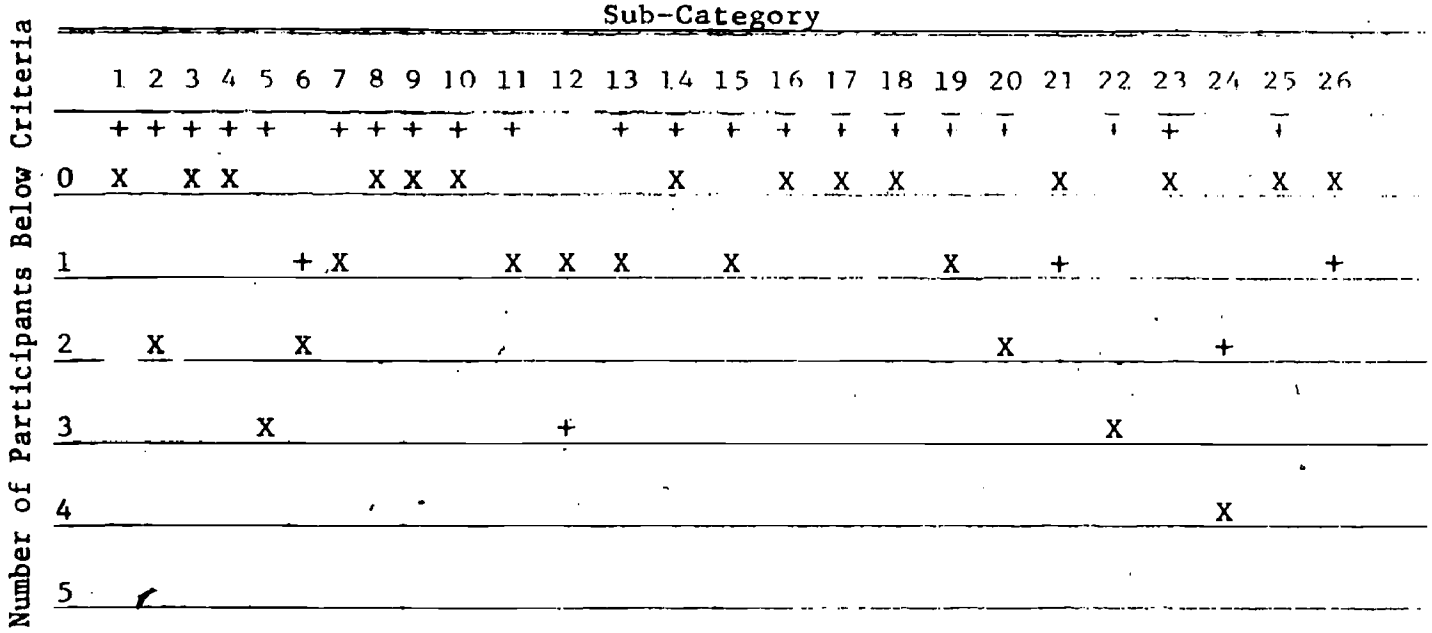
Table 2

CMI Norm Group & Gifted-Talented Group Mean Scores by Sub-Tests

		Norm Group $\bar{X}$	Pre-Guidance Lab	Post-Internship
Competency Scale	1	14.5	15.8	16.4
	2	14.43	18.7	18.8
	3	12.9	16.1	16.6
	4	11.89	16.6	17.6
	5	9.5	14.5	13.3
Attitude Scale		38.97	38.8	40.9

Table 3

CEMS Survey Instrument
Participants Below Criteria, by Sub-Category
(17 Participants Completing Both Administrations)



X = Administered Pre-Guidance Laboratory
+ = Administered Post-Internship

post-Internship is attributed to (1) benefit derived from participation in the Career Education Project, and/or (2) outside influences such as regular classroom instruction, and/or (3) reactivity of scores due to familarity of the test on the second administration.

Holland's Self Directed Search is unique because the participant self-administers, self-scores, and self-interprets the instrument. The participant first compiles a list of preferred occupations and determines a three letter summary code for each occupation. The summary code indicates the type of personality (Realistic, Investigative, Artistic, Social, Enterprising or Conventional) compatible with each occupation. This first part of the S.D.S. is the occupational daydreams section. Participants next respond to a series of scored items yielding a second summary code. This second code reflects the individual's personality type based on his/her responses. Finally, the occupational classifications booklet generates occupations most appropriate for the individual based on his or her second summary code.

Complete pre-Guidance Laboratory and post-Internship S.D.S. data are available for six participants. Half of these changed their first choice of occupational daydreams from first to second administrations. However, summary codes of occupational daydreams remained stable from one administration to the next for most of these participants. Furthermore, second summary codes (based on responses to test items) also remained stable.

Fifteen participants responded to the post-Internship administration of the S.D.S. First letters of both summary codes

(i.e., codes derived from occupational daydreams and responses to scored items) were identical for eight individuals on this administration. The first letter of the scored items summary code was repeated in either the first or second position of the occupational daydreams code in the case of 14 of the 15 participants. Favored occupations from the occupational daydreams section were generally appropriate in the case of most participants.

Crite's C.M.I. rates career maturity with six separate raw scores converted into percentiles. The attitude scale yields one score per examinee, reflecting the following attitudinal clusters (Crites, 1973, page 3): involvement in career choice process; orientation toward work; independence in decision making; preference for career choice factors; conceptions of the career choice process. The competency scale yields five raw scores, each converted into percentiles, revealing each of the following cognitive variables: (1) self appraisal, (2) occupational information, (3) goal selection, (4) planning, and (5) problem solving.

The gifted and talented group mean scores increased from pre-Guidance Laboratory to post-Internship for five sub-tests of the C.M.I. The problem solving section was the only exception. The pre-Guidance Laboratory group mean score on the attitude scale was slightly below national norms, but rose slightly above for the post-Internship administration. C.M.I. group mean scores appear in Table 2, page 27.

Data from instruments administered to all nominees during the selection process were analyzed to determine a method for expediting the selection procedure. These nine instruments included the Lorge-Thorndike Intelligence Test (1) verbal and (2) non-verbal I.Q.; the Torrance Tests of Creative Thinking (3) verbal and (4) non-verbal creativity indicies; (5) the Iowa Tests of Educational Development reading comprehension percentile score; (6) Specific Talent Ability utilizing a mixture of expert judgement and testing in the nominee's own area of talent as expressed on a 3 point scale; (7) School Success measured by cumulative grade average with a score of 100 as maximum possible; (8) the Renzuli/Hartman Behavioral Characteristics Scale expressed as the sum of scores for all 4 scales; and (9) Past Accomplishments rated on a 3 point scale from information provided by the nominees.

Multiple regression analysis (Veldman, 1967) was used to determine which of the 9 instruments were the best predictors for the purposes of participant selection.

> Multiple regression analysis may be considered a general model for testing any hypothesis cast in the form of predicting a criterion from particular sources of information (p. 294).

The goal was to develop an abbreviated participant selection procedure involving the least number of test instruments, yet maintaining a high degree of accuracy. Multiple regression analysis was particularly well suited to this task.

Two types of variables entered into the analysis. First, the criterion variable corresponded to the set of scores (one per

nominee) used to rank nominees for selection as participants in the project. This score was a composite of the nine instruments described previously and included information from each instrument. The purpose of the regression analysis was to develop an equation for estimating or predicting the criterion variable from limited information known as the predictor variables. This technique yields a multiple-correlation coefficient:

> /...The square of a multiple-correlation coefficient may be interpreted as the proportion of the variance of the criterion variable that is "explained" by the predictors, in the sense that it is predictable. The solution of a multiple-correlation problem involves the determination of a set of weights--one for each predictor variable--which may be applied to each subject's set of predictor scores to yield a series of composite predicted criterion scores (Veldman, 1967, p. 281).

The predictor variables utilized were the two or three screening instruments which "explained" or accounted for the greatest proportion of the variance of the criterion variable. Thus, in the future, participants for similar gifted and talented projects may be selected economically using fewer selection instruments, yet with comparable accuracy. The analysis was performed in the following way.

Criterion variable values were first computed by transforming each subject's 9 selection instrument scores into standard scores. This was accomplished by use of Veldman's (1967) analysis of behavioral science data program Distat. Subjects' standard scores were summed yielding one score per nominee. These summed

scores may be used to rank nominees for selection purposes instead of the system actually used in the project.

Analysis of behavioral science data program Regran (Veldman, 1967) was next utilized to determine the best predictive selection instruments. Summed standard scores were entered as the criterion variable and each of the nine selection instrument scores comprised the predictor variables. Output from the correlation matrix indicated the following correlations between the criterion variable and the nine predictor variables: I.Q. verbal = .69, reading comprehension = .62, creativity non-verbal = .53, school grade average = .51, accomplishments = .45, creativity verbal = .40, talent ability = .35, Renzuli/Hartman = .34, I.Q. non-verbal = .32. However, the iteration sequence produced the following list of predictors with accompanying R^2 values: I.Q. verbal = .48, creativity verbal = .67, school grade average = .75, accomplishments = .86, I.Q. non-verbal = .89, talent ability = .91, Renzuli/Hartman = .93, reading comprehension = .94, and creativity non-verbal = .96. This iteration sequence indicated that I.Q. verbal alone accounted for 48 percent of the variance of the criterion variable. I.Q. verbal plus creativity verbal accounted for .67 percent and I.Q. verbal plus creativity verbal plus school grade average accounted for 75 percent of the variance.

Next, program Regran was utilized again with the same criterion variable but with I.Q. verbal, creativity verbal and school grade average as the only predictor variables. The following B weights

were indicated: I.Q. verbal B = 2.4107, creativity verbal B = 1.2672, school grade average B = 3.0823. The accompanying regression constant was -262.2813. Each nominee's predicted summed standard score (of all nine selection instruments) was computed with the regression equation consisting of B weights and regression constant. Each subject's 3 selection instrument scores were multiplied by the indicated B weight, summed, then added to the regression constant.

Finally, the predicted ranking of nominees, as generated by the regression equation, was compared to the original ranking as generated by summed standard scores for all 9 selection instruments. Only 4 of 20 nominees were erroneously "selected" by using the regression equation. This seems remarkable since only 3 of the original 9 instruments were used.

6. Parental Reaction to the Guidance Laboratory Phase

A questionnaire was developed to ascertain parental observations of the impact of each of the three phases of the project on the participants. The initial parent questionnaire (see Appendix D) was mailed at the completion of Phase 1, The Guidance Laboratory, and 17 of the 20 parents responded. Overall, parental reactions to the effectiveness of the Guidance Phase were quite positive (see Table 4, page 35). One parent indicated doubt regarding the project and saw no usefulness in the questionnaire although he responded positively on three of the four questionnaire items.

Apparently the Guidance Phase did not interfere with school activities as the majority (88%) of parents viewed their children as frequently or always showing interest and enthusiasm toward completing school assignments. The activities of this phase can be viewed as being stimulating to the participants in that 88% of the parents reported that their children frequently or always discussed project activities at home. Furthermore, most (94%) of the participants frequently or always demonstrated positive attitudes toward the project. Finally, 88% of the parents felt that the participants frequently or always exhibited a realistic approach toward selecting a career interest field. It should be noted that no totally negative responses ("never") were obtained. In view of the nature of the parental responses to the questionnaire items and their frequent and generally positive comments, it can be concluded that, at least from a parental standpoint, the Guidance Phase of this project was successful.

Table 4

Means and Standard Deviations for Parent Questionnaire Items

Item #	Phase I Guidance Laboratory	Phase II Mentorship		Phase III Internship
		March	April	
1	M = 3.35 SD = .70 N = 17	M = 2.16 SD = .69 N = 19	M = 2.16 SD = .69 N = 19	M = 2.31 SD = .85 N = 13
2	M = 3.06 SD = .56 N = 17	M = 2.53 SD = .70 N = 19	M = 2.53 SD = .70 N = 19	M = 2.36 SD = .84 N = 14
3.	M = 3.47 SD = .62 N = 17	M = 3.2 SD = .41 N = 20	M = 3.2 SD = .41 N = 20	M = 3.29 SD = .61 N = 14
4	M = 3.47 SD = .72 N = 17	M = 3.3 SD = .57 N = 20	M = 3.3 SD = .57 N = 20	M = 3.50 SD = .52 N = 14
5	*	M = 3.2 SD = .52 N = 20	M = 3.2 SD = .52 N = 20	M = 3.38 SD = .77 N = 13
6		M = 3.5 SD = .69 N = 20	M = 3.5 SD = .69 N = 20	M = 3.36 SD = .74 N = 14
7		M = 2.3 SD = .66 N = 20	M = 2.3 SD = .66 N = 20	M = 2.36 SD = 1.01 N = 14
8		M = 3.2 SD = .77 N = 20	M = 3.2 SD = .77 N = 20	M = 3.57 SD = .65 N = 14
9		M = 2.6 SD = .88 N = 20	M = 2.6 SD = .88 N = 20	M = 2.64 SD = 1.01 N = 14
10		M = 1.85 SD = .59 N = 20	M = 1.85 SD = .59 N = 20	M = 1.86 SD = 1.10 N = 14
11		M = 3.2 SD = .52 N = 20	M = 3.2 SD = .52 N = 20	M = 3.46 SD = .52 N = 13
	1 = Never 2 = Seldom 3 = Frequently 4 = Always	1 = Strongly Disagree 2 = Disagree 3 = Agree 4 = Strongly Agree	1 = Strongly Disagree 2 = Disagree 3 = Agree 4 = Strongly Agree	1 = Strongly Disagree 2 = Disagree 3 = Agree 4 = Strongly Agree

*Questionnaire administered during the Guidance Phase had only 4 items.

These responses are directly related to the attainment of Objectives #13 and 14 listed in the Major Activities section of this report.

7. Records on Participants' Career Choices and Written Descriptions of Career Fields Chosen

Through Phases 1 and 2 of the project both the 15 participants and five alternates were able to participate in all project activities. Since some students selected the same mentors, and the mentors were willing to serve more than one student with the same financial reimbursement as if they had only one student, it meant that all 20 students participated in the Mentorship Phase of the project. Through participation in the Guidance Laboratory, each participant identified career interest areas. Career choices at two different points in the project have been listed in Table 1, page 5.

At the end of the Guidance Laboratory each participant wrote a detailed description of his/her first choice of a career field and a description of his/her second choice. These descriptions included the following information:

1. General description of the field
2. Occupations within the field
3. Lifestyle associated with this work
4. Preparation needed
5. Future outlook for the field
6. Reason for choice
7. Expected income.

Copies of these career field descriptions were retained in the student record folders that were maintained for each participant.

8. Teacher Questionnaire

A questionnaire was designed to elicit teacher observations of the students' classroom behavior during their participation in the project (see Appendix E). The Teacher Questionnaire was administered at the end of each month (except December) during the Guidance Phase to teachers at A&M Consolidated High School who had the 20 participants in their classes.

Overall the teacher responses were consistently favorable regarding the participants' classroom behavior (see Table 5, page 38). The teachers concurred with the parents (see item 6, page 34) that the Guidance Phase of the project did not appear to interfere with school activities. Regarding the completion of classroom assignments, almost all of the students found time to complete all assignments. During September and October, 97% frequently or always completed their work; for November this increased to 99% completing all work. Student interest in the course content also remained at a consistently high level. In September all (100%) of the students frequently or always exhibited interest toward the course content. During October and November this decreased slightly to 97%.

Cooperation with peers during classroom activities was also rated at the extreme positive end of the scale. Throughout the Guidance Phase, only one to three percent of the students exhibited uncooperative behavior in the classroom. Likewise the students rarely disrupted class. Approximately 98% never or seldom disrupted class

Table 5

Means and Standard Deviations for
Teacher Questionnaire Items

Item #	Phase I Guidance Laboratory			Phase II Mentorship	Phase III Internship
	Sept	Oct	Nov		
1	M = 3.80 SD = .48 N = 85	M = 3.76 SD = .45 N = 72	M = 3.78 SD = .45 N = 72	M = 4.73 SD = .59 N = 55	M = 4.81 SD = .51 N = 42
2	M = 3.89 SD = 35 N = 84	M = 3.83 SD = .44 N = 76	M = 3.90 SD = .35 N = 70	M = 4.80 SD = .62 N = 55	M = 4.81 SD = .45 N = 42
3	M = 1.13 SD = .40 N = 85	M = 1.13 SD = .38 N = 75	M = 1.10 SD = .39 N = 70	M = 1.24 SD = .69 N = 55	M = 1.19 SD = .45 N = 42
4	M = 3.75 SD = .43 N = 85	M = 3.68 SD = .52 N = 75	M = 3.77 SD = .48 N = 71	M = 4.60 SD = .68 N = 55	M = 4.85 SD = .36 N = 41
5	M = 3.59 SD = .65 N = 80	M = 3.48 SD = .70 N = 69	M = 3.76 SD = .59 N = 63	M = 3.47 SD = 1.53 N = 55	M = 4.10 SD = 1.19 N = 39

1 = Never
2 = Seldom
3 = Frequently
4 = Always

1 = Never
2 = Rarely
3 = Sometimes
4 = Frequently
5 = Very Frequently

1 = Never
2 = Rarely
3 = Sometimes
4 = Frequently
5 = Very Frequently

in September, 99% in October and 97% in November.

The final item of the Teacher Questionnaire concerned the student's sharing of information gained through project experiences. Although very positive responses were obtained to this item (96% frequently or always shared in September, 94% in October, and 96% in November), the comments of the teachers indicated a lack of clarity regarding whether the project experiences referred to were class project experiences or the Career Education Project experiences. Therefore, the validity of this item is questionable.

Some of the teachers also stated that the Teacher Questionnaire was not entirely applicable to certain students. A few students were well advanced for the class in which they were enrolled and were actually pursuing independent studies in the class. Several students were taking classes by correspondence or conference rather than attending class in order to participate in the Career Education Project. Based on such teacher comments, the Teacher Questionnaire was revised for the February, 1977, administration.

9. Student Evaluation of Guidance Laboratory Activities

Phase 1--Guidance Lab Report (see Appendix F) was administered to the 20 student participants on Fridays during the first phase of the project. Students were not required to indicate their names except for the first administration. The students' evaluations were read carefully by the project staff and considered very seriously in the planning of future activities in the Guidance Laboratory.

Overall, the students indicated that they benefited most from

guest speakers, field trips, and activities involving group discussions. They disliked the quantity of testing that was required, but felt that the interpretation of the test scores was helpful. The general consensus seemed to be that testing was a necessary part of the Guidance Laboratory experience, but that the procedure was somewhat inefficient as the tests appeared to be redundant or conversely, appeared not to adequately sample the range of possibilities.

The fact that guest speakers and field trips were viewed as especially beneficial is substantiated by the students' requests for the inclusion of more such activities in the Guidance Laboratory. Initially, they requested speakers and trips covering the spectrum of career opportunities. However, as the Guidance Laboratory progressed, requests for speakers and trips in specific areas increased. As career interests crystallized, the students began to express more interest in obtaining information related to their identified career area(s) and to preparation for that occupation. Thus, interest in appropriate colleges and training requirements increased. The need for more individual contact with the various career fields was also expressed as the Guidance Laboratory progressed. In summary, the needs identified by the students seemed to follow this general trend: first, general exposure to the range of career alternatives; second, more specific information in several career areas of interest; and finally, detailed information on one particular occupation, including such facts as training requirements and specific examples of the types of activities involved in that career.

10. Records on Scheduling and Transportation:

The scheduling and transportation plan was described in Objective 9, page 13 of this report. Careful records were maintained of miles traveled and driver hours for the school bus used to transport students to and from the Texas A&M University campus.

PHASE 2 - MENTORSHIP LABORATORY EXPERIENCE

1. Mentor/Supervisor Questionnaire

The Mentor/Supervisor Questionnaire (see Appendix G) was developed to ascertain each mentor's reactions to his participation in the Gifted and Talented Career Education Project. The questionnaire items concerned the following areas: (a) the adequacy of the mentor's information regarding the project and responsibilities to the project, (b) the mentor's observations regarding the student's knowledge of and attitude toward the career field, and (c) the mentor's evaluation of the meaningfulness of participation in the project. The questionnaire was administered twice, once approximately midway through Phase 2, and again at the close of Phase 2. Means and standard deviations for each item are presented in Table 8, page 54.

Overall, the mentor reactions to the project were highly positive. Only one mentor felt the project had been inadequately explained to him; initially, this individual also found the information packet to be somewhat lacking regarding the description of his responsibilities to the project. All of the remaining mentors who responded to the questionnaire indicated that the description of the project and the information packet were helpful. Although the majority of the mentors (86% in January and

77% in March) felt that the time spent with the students was sufficient, their comments indicated a need for greater flexibility in the scheduling of the Mentorship experience. One recurrent suggestion was that longer periods of time be alloted two or three days a week rather than the current short periods (about one hour) on a daily basis. Very few of the mentors (about 6) met with the project staff on a weekly basis. Of these, only one initially indicated that the conferences were beneficial, but by the end of the Mentorship Phase, five of the six responded positively regarding the helpfulness of these meetings. Finally, the majority of the mentors (75% in January and 69% in March) agreed that their participation in the project caused no significant inconvenience in fulfilling their job-related responsibilities.

Most of the mentors also reacted positively to the students' knowledge of and attitude toward the career area. Approximately three-fourths of the mentors judged their students to demonstrate adequate knowledge of the career field at the beginning of the Mentorship experience. This finding can be interpreted as substantiating the success of the Guidance Laboratory Phase of this project. Almost across the board the students exhibited positive attitudes and enthusiasm toward the career field. Additionally, the responding mentors concurred with the label of gifted for the participating students in seventeen out of twenty cases. One of those not rated as gifted by the mentor was an alternate.

Finally, 100% of the mentors felt that the mentor-student relationship was meaningful in terms of discussions held, ideas exchanged, and experiences shared. All except one mentor indicated

a willingness to serve again in the mentor capacity should the opportunity arise. The reason given by the dissenting individual was his opinion that mentors should not be in administrative roles; he stated that he would decline as long as he held his administrative position. The willingness of the mentors to participate again in a similar project indicates their view of the experience as worthwhile and can be taken to demonstrate the success of the Mentorship Phase of the project.

2. Student Evaluation of Phase 2 Activities

A questionnaire was developed to allow the students to evaluate the activities during the Mentorship experience. The student Mentorship questionnaire (see Appendix H) was administered four times, once in December, 1976, once in January, 1977, and at the beginning and end of February, 1977. These times corresponded to the bi-monthly meetings of the Mentorship seminar, completing the questionnaire being part of the seminar activities.

According to the students' responses to the Mentorship experience, this phase of the project was quite beneficial (see Table 6, page 44). Most of the students felt that they had benefited from the Mentorship experiences, and also that the supervision during Mentorship had been helpful. The majority of the students felt that the Mentorship activities had been appropriate for their level of understanding; that is, the activities were neither too difficult nor too easy for them. Initially, only 23% of the students indicated that their career plans had changed as a result of Mentorship, but by the close of the Mentorship Phase, 34%

Table 6

Means and Standard Deviations for
Student Mentorship Questionnaire

Item #	December*	January*	February 4	February 24
1	M = 3.5 SD = .51 N = 18	M = 3.53 SD = .87 N = 17	M = 3.62 SD = .65 N = 13	M = 3.75 SD = .45 N = 16
2	M = 3.11 SD = .68 N = 18	M = 3.18 SD = .88 N = 17	M = 3.15 SD = 1.07 N = 13	M = 3.44 SD = .51 N = 16
3	M = 1.78 SD = .55 N = 18	N = 1.71 SD = .69 N = 17	N = 1.83 SD = .83 N = 12	N = 1.88 SD = .72 N = 16
4	M = 1.50 SD = .62 N = 18	M = 1.69 SD = .87 N = 16	M = 1.58 SD = .67 N = 12	M = 1.38 SD = .81 N = 16
5	M = 2.88 SD = .78 N = 17	M = 3.07 SD = .80 N = 15	M = 3.09 SD = .54 N = 11	M = 2.80 SD = .68 N = 15
6	M = 3.22 SD = .43 N = 18	M = 3.18 SD = .53 N = 17	M = 2.92 SD = .49 N = 13	M = 3.00 SD = .65 N = 15
7	M = 2.19 SD = .75 N = 16	M = 2.25 SD = .68 N = 16	M = 2.75 SD = .89 N = 8	M = 3.00 SD = .74 N = 12
**8	M = 1.76 SD = .44 N = 17	M = 1.4 SD = .52 N = 10	M = 1.78 SD = .44 N = 9	M = 1.82 SD = .40 N = 11

1 = Strongly Disagree
2 = Disagree
3 = Agree
4 = Strongly Agree

*Only one questionnaire was used during each of these months due to Christmas holidays.

0 = No
1 = Yes

stated that their career plans had changed.

In December, all (100%) of the students viewed their contact with the project staff as adequate. This percentage gradually declined so that by the end of Phase 2, 20% disagreed with the statement that contact with the staff was adequate. However, no comments were given to indicate in which respect the contact was inadequate.

Regarding the students' reactions to the effectiveness of their preparation for Mentorship, 63% felt that the Guidance Laboratory had not adequately prepared them. Again the comments were not revealing of which aspects were viewed as inappropriate or irrelevant. One student stated that it was not very helpful and therefore could have lasted a much shorter length of time (one week). Another student also expressed a similar idea in stating that "80% of the Guidance Lab was a waste of time." A few students felt it was not beneficial since they had already made their career choice before the project began. Others said they learned nothing new during the Lab. By the end of the Mentorship Phase, many of the students changed their opinion on this question, with 75% stating that the Guidance Laboratory had adequately prepared them for Mentorship experiences. The comments did not indicate a reason for this change, other than that the students seemed pleased with their Mentorship placement. Thus, it is possible that many students viewed the Guidance Laboratory as a situation that must be experienced in order to be placed in the Mentorship and Internship Phases. One student stated, "It (Guidance Lab)

wasn't worth anything for me! My placement was good, though." Similarly, another comment was, "Placement was great--but I don't think the Lab helped me in deciding." A third student indicated that she had been unable to explore one field in which she was interested, and she also indicated the need for the laboratory to be "more organized and more mind searching."

For the students in retrospect, the positive aspects of the Guidance Phase seemed to be the exposure to a variety of career fields, the chance to do research on various careers, access to materials otherwise unavailable, and the knowledge gained from the test interpretations.

During the Mentorship Phase, each participant was required to keep a daily log of activities. These provided the staff personal participant input as well as documentation of mentorship activities for project evaluation. The logs served as topics for discussion by the participants during the seminars.

Overall, the logs supported the general positive response of the student mentorship evaluation questionnaires. The logs revealed that not one participant was totally dissatisfied with the Mentorship Phase. One log revealed a period of ambivalence about the career area the participant had chosen which began to resolve itself as the student neared the Internship Phase. Three logs indicated participant frustration with the rigors of college academic work experienced in their mentorship. These participants were pursuing their mentor experience in the same academic department. Their particular program was very structured and involved writing a research paper and attending undergraduate classes.

Although the mentors encompassed fourteen academic disciplines and executed their individual mentor responsibilities in different ways, the logs indicated several commonalities among the mentorship experiences. Some commonalities were: field trips, experiments, library research, attendance of college classes, operation of equipment/sophisticated machines related to career area and production of final product (see Table 7, page 48).

Perhaps the most important commonality (in terms of student impact) was that the majority of students indicated that their respective mentors spent a significant amount of time discussing individual student goals and needs. Thus, mentors provided the students realistic insights into academic and professional aspects of their career areas. Representative quotes from the daily logs which support the aforementioned positions follow:

Area of Mentorship--Physics

"We discussed possible career opportunities for me, and the advantages and disadvantages. He said I have an advantage (in college or job-seeking) because I am a woman, and therefore a sought-after minority. He said my ability would help me, but nearly everyone in physics has better than average ability, and many are extremely talented, so I will have much competition. He also emphasized that academic and working worlds are very different and success in one world does not guarantee success in the other."

Area of Mentorship--Education

"I never realized how difficult it was to teach simple mathematical facts to elementary students...this experience has convinced me that I will enjoy teaching."

Area of Mentorship--Marketing

"Im not the only person in this (college) classroom that is bored to tears--the girl to my right is scribbling all over her paper and there is a cadet who keeps falling asleep."

Table 7

MENTORSHIP ACTIVITIES

Mentor	Attend Classes	Conduct Experiments	Operate Machinery	Research Library	Field Trips	Professorial Duties	Individual Conferences	Final Products
Adams		X	X				X	X
Boone*	X					X	X	
Chastain			X		X		X	X
Gaines*						X	X	
Gillespie	X			X				X
Kracht	X			X	X	X	X	X
LeUnes	X	X	X		X		X	X
Naugle		X	X				X	
Teer	X	X	X	X	X		X	
Webb		X	X		X	X	X	
Wenck*	X						X	X
Woods	X			X	X		X	
Youngblood	X		X				X	

mentorship generated from inside [illegible] within the area of the performing arts and/or music

Area of Mentorship--Psychology

"I think I might really like working with mentally retarded children, if I could take all of the hassle that goes with that sort of job."

Area of Mentorship--Entertainment

"Talked a lot with (the mentor) today. He is a truly unique and wonderful man. Actually, everyone has been so good to me. They have all taken time, their own personal time, to help me. Not just anyone would do that or have the patience."

Area of Mentorship--Music

"Even though I was really just initiated into the "boring" side of music, I really learned a lot by just being around people who have made a career of music."

Area of Mentorship--Communications

"I've decided that one of the best things about this experience has been the good feeling you get when you spend a lot of time with something and can see some tangible results."

Finally most of the students looked forward to the bi-monthly seminars during the Mentorship Phase. They liked the opportunity to hear about other's experiences and to share their own. Those who did not look forward to the bimonthly seminars generally indicated one of three reasons: a) they did not enjoy the logs they were required to maintain, or b) they enjoyed the Mentorship experiences so much that they would prefer to meet with their mentors, or c) they were neutral towards the seminars (not disliking them but not looking forward to them).

3. Monitor Progress of Research Associate and Interns

The Research Associate and the two Interns were enthusiastic about this phase of the program. It afforded them opportunities for contact with various academic disciplines on the campus. They assisted the Principal Investigator with student placements and

with monitoring procedures. The Research Associate was also helpful in taking slides and photographs of the various placements.

It was the task of the Research Associate and Interns to mail out questionnaires and to tabulate results. They shared their observations at staff meetings and helped in planning for Phase 3.

4. Information Packet for Mentors

An information packet was developed that was presented to each mentor at the time placement was arranged. It contained information on each of the three phases of the program as well as facts concerning career education, career guidance, gifted students and high school credit. All of these and other areas were covered verbally, but the packet served as a reference for the mentor later. Of course, project staff were always available when the mentor needed assistance.

The packet was prepared in such a way that it could be used during Phase 3 as well.

5. Parent Questionnaire

As previously stated, the parent questionnaire was revised and administered at the completion of the Mentorship Phase. All 20 parents responded to the revised questionnaire. In general the reactions demonstrated that the Gifted and Talented Career Education Project definitely had an impact on the participants (see Table 4, page 35). A few (31%) of the parents perceived that their children had become more interested in high

school academics since participation in the project; many (42%) also noted increased interest in high school extracurricular activities. All (100%) of the parents felt that participation in the project had resulted in more realistic career decision-making on the part of their children. A large majority (95%) indicated that their children discussed career alternatives with them, and an equal number (95%) believed that the career education project had influenced their children's future planning. Similarly, 90% felt that their children had obtained more realistic views of college life as a result of the Mentorship Phase. About 30% of the parents felt that their children had changed career goals as a result of participation in the project; apparently the remaining 70% retained the career goals they had established before the project. All but 10% of the parents responded that their children had decided to attend college prior to the project. About 55% felt this decision was strengthened through the project experiences; 10% believed that their children had changed their decision regarding college attendance as a result of participation in the project. Finally, all but one parent indicated that their children shared project experiences with them.

In response to the item regarding the most beneficial aspects of the project, parents generally indicated exposure to career alternatives, contact with professionals in the career areas, and more specific information about chosen career fields. Factors listed as least beneficial included the interest tests, Guidance Phase, and subjects missed at high school or college.

6. Teacher Questionnaire

The revised form of the teacher questionnaire was administered at the close of the Mentorship Phase. As was found in the Guidance Phase, the Mentorship experiences did not seem to interfere with the project participants' scholastic achievement nor their attitudes toward school. According to their teachers almost all (96%) of the students frequently or very frequently completed all assignments, and 93% were frequently interested in the subject content of the course. Most (93%) of the students were cooperative with their peers during classroom activities, and only one student showed disruptive behavior in the classroom very frequently. About half (51%) of the students frequently or very frequently shared information gained through the career education project experiences (see Table 5, page 38).

7. Records on Scheduling and Transportation

During the Mentorship Phase of the project, transportation to the Mentorship location was provided. The project reimbursed the school district for the cost of the driver and for mileage incurred. Records of both hours and mileage were submitted to the fiscal agent for reimbursement.

The bus route stopped directly adjacent to campus Mentorship sites so that a minimum of time was spent in travel. The school was willing to schedule both a morning and an afternoon route, but all students chose the morning time slot.

PHASE 3 - WORKING INTERNSHIP EXPERIENCE

1. Mentor/Supervisor Questionnaire

The Mentor/Supervisor questionnaire (see Appendix G) was also administered to the Internship supervisors. Reactions to their participation in the Gifted and Talented Career Education Project were obtained on two separate occasions--once midway through the Internship Phase and again at the completion of the Internship Phase. The responses were generally quite positive (see Table 8, page 54). Only one supervisor felt that the project had been inadequately described, and two supervisors indicated that they had never received the information packet. The remaining supervisors all agreed that the explanations to them regarding the project were sufficient and that the information packets were helpful. Initially, 91% of the supervisors stated that the time allotted to them with students was adequate. However, by the completion of this phase, 36% declared that the time schedule needed some adjustment. Several of the supervisors indicated that they would prefer having the students work for them for longer periods of time each day. Another stated that there should be more flexibility in the timing arrangements. All but one of the supervisors felt that the students entered the Internship Phase with adequate preparation; 100% felt that the students demonstrated positive attitudes and enthusiasm toward their career fields. However, at the completion of the Internship Phase, one supervisor disagreed with the statement regarding student display of a positive attitude and enthusiasm. This reaction was due to the supervisor's feelings that the student had not yet definitely

Table 8

Means and Standard Deviations for Mentor/Supervisor Questionnaire

Item #	Mentorship	Internship		
	January	March	April	May
1	M = 3.06 SD = .44 N = 16	M = 3.23 SD = .44 N = 13	M = 3.36 SD = .67 N = 11	M = 3.17 SD = .58 N = 12
2	M = 3.06 SD = .25 N = 16	M = 2.92 SD = .28 N = 13	M = 2.50 SD = .93 N = 8	M = 3.00 SD = 1.04 N = 12
3	M = 3.07 SD = .80 N = 15	M = 2.92 SD = 1.04 N = 13	M = 3.09 SD = .54 N = 11	M = 2.73 SD = .65 N = 11
4	M = 2.88 SD = .62 N = 16	M = 2.77 SD = .60 N = 13	M = 3.09 SD = .54 N = 11	M = 3.33 SD = .49 N = 12
5	M = 3.19 SD = 1.05 N = 16	M = 3.69 SD = .48 N = 13	M = 3.55 SD = .52 N = 11	M = 3.58 SD = .67 N = 12
6	M = 2.14 SD = .38 N = 7	M = 2.18 SD = .41 N = 6	M = 2.63 SD = .92 N = 8	M = 2.50 SD = .76 N = 8
7	M = 3.88 SD = .34 N = 16	M = 3.83 SD = .39 N = 12	M = 3.45 SD = .39 N = 11	M = 3.33 SD = .49 N = 12
8	M = 3.19 SD = .83 N = 16	M = 3.15 SD = .90 N = 13	M = 3.18 SD = .60 N = 11	M = 3.33 SD = .49 N = 12
9	M = 3.56 SD = .63 N = 16	M = 3.38 SD = .51 N = 13	M = 3.40 SD = .52 N = 10	M = 3.55 SD = .52 N = 11
10	M = 3.5 SD = .82 N = 16	M = 3.77 SD = .44 N = 13	M = 3.91 SD = .30 N = 11	M = 3. 75 SD = .45 N = 12

1 = Strongly Disagree
2 = Disagree
3 = Agree
4 = Strongly Agree

decided on a career. Several of the supervisors did not respond to the item on the benefit derived from meetings with the project staff. Many of these indicated that they had not attended such meetings. All (100%) of the supervisors stated that their relationship with the students was meaningful, and all of them also indicated a willingness to serve in the supervisory capacity again. Only one supervisor indicated that any major inconvenience had occurred as a result of participation in the project. The difficulty in this case seemed to be in finding blocks of time to spend with the student on a daily basis. All of the supervisors agreed with the label of gifted students, and the comments were most complimentary of them.

2. Student Evaluation of Internship Activities

The students evaluated the activities of the Internship Phase on two different occasions, once approximately midway through the phase and a second time at the completion of the phase. The student questionnaire (see Appendix H) concerned the relevance of experiences in the Mentorship Phase and Guidance Laboratory to Internship experiences, usefulness of the Internship, adequacy of Internship placement, and feelings regarding the appropriateness of career choice. Suggestions for changes in the Internship arrangements were also requested.

Overall, the students responded positively to all items (see Table 9, page 56). Initially, one student felt that Mentorship experiences were rarely related to Internship experiences, but by the completion of the Internship, all students felt that Mentorship experiences were related to Internship experiences, "sometimes"

Table 9

Means and Standard Deviations for
Student Internship Questionnaire

Item #	March	May
1	M = 3.83 SD = .94 N = 12	M = 3.83 SD = .83 N = 12
2	M = 2.82 SD = 1.17 N = 11	M = 2.42 SD = .79 N = 12
3A	M = 4.83 SD = .39 N = 12	M = 4.17 SD = 72 N = 12
3B	M = 4.67 SD = .49 N = 12	M = 4.50 SD = .52 N = 12
3C	M = 4.50 SD = .80 N = 12	M = 4.08 SD = 1.08 N = 12
4	M = 4.17 SD = .72 N = 12	M = 3.92 SD = .79 N = 12
5	M = 3.78 SD = .67 N = 9	M = 3.50 SD = 1.09 N = 12
6	M = 4.50 SD = .52 N = 12	M = 4.83 SD = .39 N = 12

1 = Never
2 = Rarely
3 = Sometimes
4 = Frequently
5 = Very Frequently

to "very frequently" (sometimes = 42%; frequently = 33%; and very frequently = 25%). The Guidance Laboratory was viewed as relevant much less frequently. Midway through the Internship, 55% of the students stated that the Guidance Lab was rarely relevant to Internship experiences. By the close of the Internship, 50% stated that the Guidance Lab was rarely relevant and 8% felt that it was never relevant to Internship experiences.

The majority of the students felt that they were benefiting from the Internship. At the completion of the Internship, 83% of the students indicated that they frequently or very frequently had gained insight into the life styles of those in their career field; 100% had frequently or very frequently gained insight into their own needs and interests; and 84% had frequently or very frequently gained information about their chosen career field. As a result of the project experiences, 83% were convinced that their career choice was right for them. All of the students stated that their Internship placement sometimes to very frequently corresponded well to their career field interest. All of the students were pleased with their Internship placement; 83% stated that they were very frequently pleased, and 17% were frequently pleased.

Most of the suggested changes for the Internship Phase concerned time arrangements. Several of the students suggested making the Internship Phase longer, others suggested that it be scheduled during the summer in order to allow for more flexible schedules and longer working hours. One student suggested that more field work be incorporated into the Internship Phase, and another desired to be assigned more work.

The students were also asked to list typical activities occurring in Internship. The experiences reported varied widely. The students indicated that for the most part they really had no set routine; instead, they sampled a variety of activities in order to gain exposure to many facets of their career area. However, a few of the students did have set responsibilities; one student had his own radio program; another was responsible for developing a computer inventory system. The following response is representative of the diversity of experiences each student obtained during internship:

> "I have been involved in "roughnecking" on a core-boring rig and bringing the core soil samples back to the lab and testing them...I have been surveying all over East Texas, using chains, plumbobs and transits...I have been plotting core-boring sites on large maps for a Conoco refinery in Louisiana. I have worked side-by-side with all types of people and have enjoyed the work very much."

The Edwards Personal Preference Schedule (E.P.P.S.) was administered during the final weeks of the Internship. The E.P.P.S. yields percentile scores for each of 15 variables, including achievement, deference, order, exhibition, autonomy, affiliation, intraception, succorance, dominance, abasement, nurturance, change, endurance, heterosexuality and aggression. High percentile scores indicate strong manifest needs associated with each of the variables. Participants completed the E.P.P.S. individually, then raw scores were averaged separately for six males and for nine females. Averaged raw scores were converted into percentiles yielding a single profile for males and another for females. These profiles represent common manifest needs of the gifted and talented students. Conversion to percentiles was based on norms for college students.

The female's strongest manifest needs included exhibition, autonomy, and change. Each of these variables were scored above the 80th percentile. Exhibition represents a need to interact socially in an outgoing and clever way and to be noticed by others. This corresponds to the project staff members' appraisals of the participants. The need for autonomy involves doing as one pleases, avoiding required conformity, criticizing authority and generally directing one's own life. Late adolescents preparing to leave the family of origin are expected to exhibit such needs. Perhaps the group's high level of creativity adds to their desire for autonomy, as well as for change. The last high scoring variable represents a need to experience new events and new people, to travel, and to experiment with new jobs and new routines.

The females showed least need for deference, order and affiliation. Deference refers to following instructions and suggestions from others, conformity and praise of others The need for order includes organization in planning and routine patterns for living Low affiliation suggests that these women participants do not need strong attachments among friends, loyalty from friends and participation in groups.

Male participants demonstrated the greatest needs for heterosexuality, exhibition, and achievement. Heterosexual needs involve interactions with those of the opposite sex, dating, discussions about sex and sexual excitement. Exhibition is the same for males as was previously described for females. Achievement needs include desire to do one's best, to accomplish tasks and ability to perform better than others.

Males scored lowest on nurturance, affiliation and change. Lack of manifest need in these areas is particularly interesting because females also scored low in affiliation, but highest in change. Low needs for nurturance are associated with little willingness to help others, to treat others with kindness and to have others confide about personal problems.

3. Monitor Progress of Research Associate and Interns

During the Working Internship Phase, the project administrators observed the progress of the Research Associate and Interns. By the beginning of Phase 3, they had built a wide knowledge base about gifted education and career education so that their meetings with the Internship site supervisors during the third phase was profitable for both parties. The Research Associate and Interns contributed greatly to the efficiency of the data gathering procedures in particular.

4. Develop Information Packets for Internship Site Supervisors

The packet of materials prepared during the Mentorship Phase was put together in such a way as to be used as an information source during both Phases 2 and 3. The packets of materials were presented to the site supervisor or company representative at the time the agreement form to provide the experience for the student was signed.

5. Parent Evaluation of Internship

The Parent Questionnaire was again administered at the close of the Internship Phase. Their reactions toward the project have been

generally positive. About 39% of the parents felt that their children had increased their interest in high school academics since participation in the project; 43% felt that interest in extra-curricular activities had increased.

All of the parents indicated that their children discussed future career alternatives and shared project experiences with them. All but two parents felt that future career planning had been influenced by participation in the project. Similarly, all but two parents believed their children to have more realistic views of college life and responsibilities as a result of project experiences. The same response pattern occurred regarding increased realism in making career decisions; only one parent felt that his child had not become more realistic in making career decisions.

Apparently, the project mainly served to strengthen already established career goals. Only four of the parents indicated changes in their children's career objectives as a result of project participation. All but one of the students had decided to attend college prior to participation in the project; this decision was strengthened in 57% of the cases. Only 21 percent of the parents responded affirmatively to the item regarding a change in decision to further academic pursuit in a university as a result of participation in the project. However, one comment indicated that the change would most likely be to pursue graduate studies, which had not previously been planned.

According to the parents the most beneficial aspects of the project were the experiences encountered, the exposure to many

career alternatives, the exposure to the college setting, and the selection and/or confirmation of a career field. One parent stated that his child had gained self-confidence; another reported that his youngster had most benefited by learning about himself and his capabilities.

Parents' views of the least beneficial aspects of the project were mainly related to the Guidance Laboratory and to the scheduling of the project experiences. Several parents reported that the career interest testing component was least beneficial; one stated that his child still does not know which career field is best from an aptitude standpoint. Another parent suggested that the Guidance Phase needed more planning. Time away from high school studies was viewed as the least beneficial aspect in one instance. Finally, it was suggested that the phases be tailored to specific career fields instead of lasting the same amount of time for everyone.

Teacher Evaluation of Internship

The Teacher Questionnaire was again administered at the completion of the Internship Phase. The responses were extremely positive (see Table 5, page 38). In all but two instances the teachers reported that the students frequently or very frequently completed all assignments. Similarily, in all but one case the teachers stated that the students frequently or very frequently cooperated with peers during classroom activities. Only one student was sometimes disruptive during class; the remaining students rarely or never exhibited disruptive behavior. All of the teachers indicated

that students frequently or very frequently showed interest in the course content.

The largest range of answers occurred in response to the item regarding the sharing of information gained through the Career Education Project. Only 8% of the responses indicated that the students never or rarely shared experiences; 26% felt the students sometimes shared experiences; the remaining 66% of the responses reported that the students frequently or very frequently shared project experiences. One teacher commented, "Her remarks were most beneficial to the class."

7. Monitor Scheduling and Transportation Plan

Because of the nature of the Working Internship Phase, each student's schedule was different. During the first two phases, it was essential that all students block the same time frame into their schedules for transportation purposes.

Phase 3 required that each student be responsible for his/her own transportation to and from the work site. It was further suggested that in scheduling the work time, the student try to arrange the time block during the first two periods of the school day or the two periods on either side of the lunch hour so that allowances for driving time could be made. The time and transportation requirements for Phase 3 were explained to all the participants prior to Phase 1 since it could have been a factor in deciding to participate in the project. No student decided against participation in the project because of these requirements.

8. Guide to Career Education for the Gifted & Talented and Final Report

A monograph that provides a concise outline of the project has been developed for dissemination. While it does not provide a lengthy discourse on each step to be followed in replicating the project, it does provide a point of departure for the beginner in career education for gifted and talented students. A copy of this monograph is included in Appendix K.

This document serves as criteria for meeting the responsibility implied in completing the final report.

FOLLOW-UP AND SYNTHESIS

1. Follow-up Evaluation of the Project by the Students

A follow-up questionnaire (see Appendix H) was developed to determine the students' views of the project as a whole. It was felt that after having completed the entire project, the students would be in a better position to evaluate the separate phases and to judge the overall value of participation in the project. To date, 12 participants have responded. The responses as a whole were most positive.

All of the students stated that they would choose to participate in the project if they had it to do again. Reasons most often given concerned exposure to experiences not available in the regular classroom and a better understanding of what is involved in particular career fields.

Most of the changes suggested by the participants were in the Guidance Laboratory (see Table 10, page 65). The relative

Table 10

Means and Standard Deviations of the Student's Ratings of the Three Project Phases

Guidance Lab	M = 2.67 SD = 1.15 N = 12
Mentorship	M = 4.42 SD = .67 N = 12
Internship	M = 4.90 SD = .32 N = 10

1 = No Benefit
2 = Little Benefit
3 = Medium Benefit
4 = Above Average Benefit
5 = Extreme Benefit

dissatisfaction with this phase was also indicated by the student's responses regarding the benefit of this phase. About 45% of the students found the Guidance Laboratory to be of medium benefit; 9% viewed it as giving above average benefit and 9% as giving extreme benefit. The remaining 3% viewed the Guidance Laboratory as being of little or no benefit. The changes suggested included individualizing the guidance component, increased planning and organization of Phase 1, increased exposure to speakers and career alternatives, shortening Phase 1 and eliminating repetitious testing during the Guidance Phase. The addition of more specific information on the chosen career field was also a change which students felt would have made the Guidance Laboratory more beneficial.

The Mentorship Phase was viewed more positively, with all except one student indicating above average or extreme benefit. Regarding the Mentorship Phase, some students felt that broader exposure to more facets of the career field would have been helpful. A few participants stated that they would have preferred more intense exposure to sub-specialities in the career field, and others felt that their mentorship placement should have been more closely related to their chosen career fields. One student stated that more direct participation and less observation would have been helpful; another indicated a need to better inform the mentors about the project and the mentors' responsibilities.

The Internship Phase was viewed most positively by the students. All but one student felt the Internship was of extreme benefit; the remaining participant viewed it as above average in benefit.

Three of the participants stated that their career goals are still undetermined; the others listed such diverse career objectives as journalism, engineering, buyer in the fashion area, teaching certificate, doctorate in physics, and transportation. All of the students reported that they intend to attend college in the coming year.

2. Overall Project Evaluation

In summary, it appears that the Gifted and Talented Career Education Project was well received by all involved with it. The students, their parents, their teachers, the mentors, and the Internship supervisors were consistently positive in evaluating the project. The needs of all students involved were not completely met, but they all stated that they had greatly benefited from participating in the program, and would make the same decision again. Several of the students and parents expressed the hope that the project continue, and possibly be expanded to involve all seniors.

Although the program as a whole was successful, it was not without its problems. The weakest aspect of the project was the Guidance Phase. This phase could be improved by greater planning and organization and more flexible scheduling. The need for an individualized approach to the guidance component is evident; initially, the students benefited from exposure to a broad spectrum of career alternatives. Thereafter, however, each student should have been able to pursue his/her career choice in depth, at his/her own speed. Whatever arrangements regarding scheduling are made, the speakers, field trips, and contact with professionals in the field should be retained. This was the most beneficial aspect of the

Guidance Phase; it was expanded and intensified during the Mentorship and Internship Phases and in large part accounts for the success of the project.

The Mentorship Phase involved much less dissatisfaction. Problems encountered during this phase largely related to scheduling difficulties, inadequate correspondence of Mentorship placement and career choice, and lack of sufficient breadth and/or depth of experiences in the career field.

The Internship Phase was almost totally satisfactory for all students. Very few negative comments were received regarding this phase. It would probably be helpful to schedule the Internship during the summer so that project participants could have more freedom in placement and greater exposure to the career areas through such activities as field trips or on-site visits. The increased flexibility in work schedules would also be beneficial.

Finally, the following comment summarizes very well the feelings of the participants in the Gifted and Talented Career Education Project. Although it is specific to one field, the thought expressed is typical of the reactions of the other participants:

> "I sure appreciate being selected to participate in the program. I've really gained much knowledge of engineering principles and met many professionals in the engineering field...you and the others did an excellent job!"

The evaluation plan format called for a participant profile late in the first phase of the project. The mid-year report provided that information as accurately as could be reported at that time. The profile of participants presented in this report (page 24) provides a more comprehensive look at the participant profiles because it views students from both a pre and post project stance.

The following statistical analyses were done to assess changes occurring throughout all three phases of the project. Inferences must be limited because a repeated measures design was used.

The performance of 17 participants on the Career Ed Measurement Series was transformed into single quantative scores to facilitate statistical analysis. Each sub-category yielded two points if performed below criteria and one point if performed above criteria. These points were summed and added to 10, yielding one score per administration per participant. An analysis of variance was used in a single group, repeated measures design. Trials consisted of scores from the pre-Guidance Laboratory (mean = 12.11) and post-Internship (mean = 13.4) administrations of the C.E.M.S. A significant trials effect was found ($F_{1,16} = 6.082$; $p = .02$). Apparently, participants significantly increased performance on the C.E.M.S. during the course of the project.

An analysis of variance was also performed on raw scores from each of the 6 scales of the Career Maturity Inventory. A single group, repeated measures design was used with 19 participants. A significant trials effect was found for the Attitude Scale (pre-mean = 38.84, post-mean = 40.94; $F_{1,18} = 5.49$, $p = .0291$) as well as for the Planning (pre-mean = 16.68, post-mean = 17.63; $F_{1,18} = 4.586$, $p = .0439$), and Problem Solving (pre-mean = 14.47, post-mean = 13.36; $F_{1,18} = 4.759$, $p = .0405$) sections of the Competency Test. The significant decrease in scores for the Problem Solving section of the Competency Scale is surprising.

The growth of the individual participants throughout the project was gradual and lasting. In the Guidance Laboratory Phase, their comments on questionnaires indicated doubt in the value of the Guidance Lab experiences. They were not always comfortable with the testing that was required.

With the two subsequent phases, appreciation for the preceeding phase became evident to participants as the growth process evolved. They were able to see the importance of the Guidance Laboratory as a foundation for the Mentorship Phase and the Mentorship as a prerequisite for the Internship Phase.

Probably the most exciting aspect of the project has been the observable transformation of the participants from the high school student stage to the adult stage. The project staff would like to believe that they made a contribution to this developmental process.

12. Anticipated Changes and/or Problems

Several changes were made during the course of the project that seemed to strengthen the overall effectiveness of the program. These were:

1) Originally, a questionnaire was to have been administered to the building principal monthly. Since the principal might not have had an opportunity for personal observation of the students, it was decided that more meaningful reactions to the project and its effects on the students could best be obtained from the classroom teachers. Therefore, all teachers who regularly taught one or more of the project participants were surveyed monthly (see Appendix E).

2) Four audit visits were originally planned during the project. A third party evaluator (Dr. Bruce Read, Educational Systems Associates, 3445 Executive Center Dr., Suite 205, Austin, Texas 78731) was retained. Due to a reduction in the project budget from the original request, only three on-site visits were conducted. Evaluation processes and instruments were discussed with the evaluator via telephone and correspondence in lieu of the fourth visit. Dr. Read was most helpful in organizing for internal continuous evaluation. This type of flexibility permitted the revising of questionnaires and other data gathering devices when the need for doing so was indicated.

3) Bi-weekly Seminars were initiated during Phase 2. This was not a part of the original proposal but was instituted for several reasons. The students indicated during the Guidance Lab the desire to maintain contact as a group periodically and to share experiences gained in the Mentorship Phase.

A second reason for instituting the seminars was to provide a time for mentors and parents to visit and observe the results of the overall program as viewed by the participants.

The third reason for this change was to keep the project staff informed and familiar with the day to day experiences of the students. Students maintained daily logs of Mentorship experiences that were used as the basis for their seminar exchanges. Copies of the logs then became a part of their profile folders in the project files.

4) The project proposal called for a total of 15 participants and 5 alternates. Since the Guidance Lab Phase was an important

foundation experience for the other two phases of the project, it seemed vital that all students have access to this information. All 20 students participated fully in Phase 1. During Phase 2, several students chose the same career fields. After talking with the mentors, they indicated a desire to include more than one student where it seemed appropriate at no increase in their fees. This permitted participation of all 20 students in the second phase, also. The alternates experienced no difficulties in participating fully in the first two phases of the program and, in some instances, seemed to excel over the regular participants. A desire to continue in the program may have accounted for this growth pattern.

5) Objective #14 in the revised set of objectives in the approved proposal was changed to obtain parent reactions to their youngster's participation in the project rather than the parent's interest in and an awareness of the career selection process. This is evidenced by the content of the Parent Questionnaire (see Appendix D). This type of information seemed more relevant to the progress and success of the project.

13. Dissemination Activities

1) News releases have provided area residents with information about the program. Local coverage has been good in the newspapers, radio and television. Copies of several newspaper articles are included (see Appendix I). In addition to these, a KBTX-TV program, Town Talk featured the Principal Investigator talking about the project. Another station,

KAMU-TV, devoted a half-hour program to the identification of the gifted on The Feminine Touch. A later program gave additional visibility when the program director for the National Conference on Career Education was a guest on the same program.

2) Three students who were assigned to the University's television station director during the Mentorship Phase produced a half-hour TV special that was aired twice to the KAMU-TV viewing audience (which includes all of the Bryan-College Station area, Brazos County and much of several surrounding counties). The program was entitled, "CHS...What's Next?" and featured a close-up look at their high school and its goals. The three participants wrote the program, conducted all of the interviews, ran camera for the entire series and edited the film footage for the program. It was well received by local residents and called attention to the project in an unusual way.

3) The Educational Psychology Department and the Office of Continuing Education at Texas A&M hosted a Conference on Gifted and Talented Children and Youth on November 5, 1976. The keynote address delivered by Dr. E. Paul Torrance, University of Georgia, was entitled, "Future Careers for Gifted and Talented Students." Both co-directors of this project were speakers during the conference.

4) During Phase 3, the hostess of a local half-hour television program that featured a talk-show format entitled, Etc., interviewed seven of the project partioipants about their experiences.

5) Project staff members have been frequent speakers at PTA programs, in-service programs, local civic organizations and clubs. Much interest

in career education for gifted and talented students has been generated through this project. One of the directors was a recent speaker at a state agency meeting on career education for the gifted. The co-directors were also invited to make a presentation at the Project Director's meeting in Washington, D.C. in January 1977.

6) The project co-directors and the principal investigator were presenters during the American Personnel and Guidance Association's Convention March 6-9, 1977, in Dallas, Texas. The program was entitled, "An Exemplary Career Education Model for the Gifted and Talented," and information about the project was the major focus.

7) Through USOE publications, the project has gained visibility that has led to inquiries about the project. These letters have been answered and a mailing list is being developed for dissemination of the final report and a monograph about the model.

4. Special Activities

1) The participants in the project were in the audience during the Conference on Gifted and Talented Children and Youth to hear Dr. E. Paul Torrance's address. They had taken his Creativity Test and were knowledgeable of his work, which made his speech all the more interesting.

2) Both male and female participants have been encouraged to explore and consider non-traditional careers in deciding on a selection for the Mentorship Experience and the Working Internship Experience. The table on page 5 gives evidence of this success.

3) The final activity during the Guidance Lab Phase was the writing of Scenarios (see Appendix J for instructions). Each student was to

project him/herself into the future to the year 2001. The scenario would deal with one day in their lives as they expected it to be. The Scenarios were introspective to some extent and certainly futuristic. They were reflective of Guidance Lab experiences and Mentorship choices as well.

4) Three members of the project staff attended the National Association for the Gifted Conference in Kansas City, Missouri, during October, 1976.

5) Three members of the project staff attended the National Career Education Conference in Houston during November, 1976.

15. Report Abstract

. Project No. 554AH60528 . Grant No. 300760282

. Final Report . July 1, 1976 to June 30, 1977

. Category of Project: Populations

. Project Title: "Development of an Exemplary Career Education Model for the Gifted and Talented"

. Project Administration

Co-Directors: Dr. Christopher Borman and Dr. William R. Nash

Principal Investigator: Sharon Colson

Name and Address of Grantee/Assistance Contractor

Institution: Texas A&M Research Foundation
P.O. Faculty Exchange H
College Station, Texas 77843

Telephone: (713)846-7731

Fifteen participants and five alternates were chosen from 46 high school seniors who were nominated for participation in a career education project for gifted and talented students at Texas A&M University (TAMU). One academic year at no cost to the participating students was provided through a grant from the U.S. Office of Education, Office of Career Education. TAMU's Center for Career Development and Occupational Preparation, College of Education, was awarded the grant to develop an exemplary model for the gifted and talented that would demonstrate the most effective methods and techniques in career education for this special population. Christopher Borman and William Nash were co-directors and Sharon Colson was principal investigator.

The 20 seniors selected, 11 females and 9 males, were from the A&M Consolidated Independent School District, College Station, Texas, approximately 100 miles northwest of Houston. The selection process was based on multiple criteria with equal weight being assigned to

each measurement area. Students were screened in the areas of academic achievement and ability, talent in any aesthetic area, mechanical ability, potential for leadership, and qualities of creativity.

The program had three basic phases. Phase I, Guidance Laboratory Experience, featured self-investigation and evaluation procedures, career exploration, resource speakers, isolation of career areas and mentorship interviews. The students spent 2 hours per day in the Guidance Laboratory at TAMU during the first quarter of the school year.

Phase II, Mentorship Laboratory Experience, also utilized a 2-hour time block. During this phase, the students were placed in observer roles in specialized areas identified during Phase I. A shadowing experience under the direction of a TAMU professor was afforded each participant during the second quarter of the school year.

Based on information and experience gained during Phases I and II, the individual students were placed in on-site work experiences during the third quarter of school. Phase III, Working Internship Experience, was under the direction of the site supervisor at a location selected from within the community that corresponded to the student's tentative career selection.

Through this project, the public school, the university, and the community joined forces to develop a model that can be replicated by other school districts to better serve the career development needs of this special population.

APPENDIX A

A Unique Learning Opportunity For Gifted and Talented High School Seniors

Purpose

To demonstrate the most effective methods and techniques in Career Education for Gifted and Talented high school students.

Student Identification

- Academic Achievement and Ability
- Talent in any Aesthetic Area
- Mechanical Ability
- Potential for Leadership
- Qualities of Creativity

Duration of the Project

One Academic Year

Cost to Students

None

The number of students who can participate will be limited. Students should have reached senior standing to be considered.

Purpose

To demonstrate the most effective methods and techniques in Career Education for Gifted and Talented high school students.

Student Identification

- Academic Achievement and Ability
- Talent in any Aesthetic Area
- Mechanical Ability
- Potential for Leadership
- Qualities of Creativity

Duration of the Project

One Academic Year

Cost to Students

None

The number of students who can participate will be limited. Students should have reached senior standing to be considered.

THREE PHASE PROGRAM

Phase 1
Guidance Laboratory Experience

Through self-investigation and evaluation procedures, students will identify tentative career interest areas. All activities will be conducted in the Educational Psychology Lab at TAMU during the regular school day.

Phase 2
Mentorship Laboratory Experience

Individual participants will be placed in observer roles in specialized areas identified during Phase 1. A shadowing experience under the direction of a Texas A&M professor of advanced studies will be afforded each participant during the regular school day.

Phase 3
Working Internship Experience

Based on information and experience during Phase 1 and 2, the individual students will be placed in on-site work experiences. The work sites will be under the direction of persons engaged in the career field the student has tentatively selected. The student will be a paid worker during this phase.

PARTICIPANT NOMINATIONS

- STUDENTS who wish to be considered as participants may place their names in nomination.
- PARENTS of students may place their children's names in nomination.
- TEACHERS and COUNSELORS whose experiences with students have revealed gifted and talented potentialities should place the names of these students in nomination.

Participant Selection

A series of tests will be administered to all nominees. Selections will be made by the screening committee from Texas A&M University in keeping with the guidelines set forth in the contract with the United States Office of Education.

Admission to Texas A&M University and any of its sponsored programs is open to qualified individuals regardless of race, color, religion, sex, national origin or educationally-unrelated handicaps.

Complete and return to:
CDOP, COLLEGE OF EDUCATION
TEXAS A&M UNIVERSITY

Student Nomination Form
GIFTED AND TALENTED PROGRAM

(Student's Name) (Mailing Address) (City and State)

The student listed above is offered in nomination based on one or more of the following (please place a check on the line indicating the identifying characteristics):

Academic Achievement and Ability

Talent in an Aesthetic Area. Please list talent area:

Mechanical Ability

Potential for Leadership

Qualities of Creativity

Submitted by:

Date:

Center for Career Development and Occupational Preparation
College of Education
Texas A&M University
College Station, Texas 77843

U. S. POSTAGE
BULK RATE
Non-Profit Org.
PAID
College Station, Texas
PERMIT NO. 215

APPENDIX B

- Student Data Form
- Screening Criteria Form

CAREER EDUCATION FOR GIFTED AND TALENTED STUDENTS
TEXAS A&M UNIVERSITY

STUDENT DATA FORM

Name _____ Date _____

Address _____ Parent or Guardian:

_____ _____

Date of Birth _____ Age _____

Sex _____ Race _____ Years Enrolled _____

Area(s) of Referral:

1. Intelligence Test Scores

   Verbal I.Q. _____

   Non Verbal I.Q. _____

   Comment:

2. Creativity Test Scores

   Verbal Index _____

   Non Verbal Index _____

   Fluency

   Flexibility

   Originality

   Elaboration

   Comment:

3. Achievement Test and Speciality Area

Reading Comprehension Percentile _____

Speciality Area: _____

Area:

(List test score or expert estimate if non-test area)

Comment:

4. Behavioral Characteristics Scale (Renzulli/Hartman)

Learning Characteristics (32) _____

Motivational Characteristics (36) _____

Creativity Characteristics (40) _____

Leadership Characteristics (40) _____

(List high, medium or low)

Comment:

5. High School Grade Average

Three Year Cummulative _____

Comment:

6. Personal Achievements, Experiences, and Past Records

Personal Achievements (See student questionnaire for Honors, Awards, and Significant Performances and make high, medium, low, or none judgement on quantity and quality).

Comment:

CAREER EDUCATION FOR GIFTED AND TALENTED STUDENTS
TEXAS A&M UNIVERSITY

SCREENING CRITERIA FORM

Name _____ Date _____

Rating System:

H	(High):	3 Points
M	(Moderate):	2 Points
L	(Low):	1 Point
O	(Other):	0 Point

Possible Total Points: 27 Grand Total _____

1. Intelligence Test Total _____

Test:

Verbal I.Q. _____

H: 132 and above
M: 124 through 131
L: 118 through 123
O: 117 and below

Non Verbal I.Q. _____

H: 132 and above
M: 124 through 131
L: 118 through 123
O: 117 and below

2. Creativity Test — Total _____

Test:

Verbal Index _____

H: 130 and above
M: 122 through 129
L: 115 through 121
O: 114 and below

Non Verbal Index _____

H: 130 and above
M: 122 through 129
L: 115 through 121
O: 114 and below

3. Achievement Test and Speciality Area — Total _____

Test:

Reading Comprehension

H: 98th percentile and above
M: 93rd percentile through 97th %ile
L: 86th percentile through 92nd %ile
O: 85th percentile and below

Speciality Area (Language, Math and Science, Mechanical, Art, Music, or drama) _____

Criteria for Speciality area should follow percentages above if tested or be judgement from interview with expert based on high, moderate, low, or no potential.)

4. Behavioral Characteristics — Total _____

H: High profile on two scales
M: High profile on one scale
L: Moderate profile on two scales
O: No high profile

5. High School Grade Average

Total _____

H: 97 and above
M: 93 through 96
L: 89 through 92
O: 88 and below

6. Personal Achievements, Experiences, and Past Records.

Total _____

Personal Achievements (Honors Awards, Significant Performances

_____

H: Significant Number
M: Moderate Number
L: Low Number
O: None

GIFTED & TALENTED PROJECT
Texas A&M University

Name _____ Date _____

Please fill out this form listing everything during your High School years under the appropriate headings. Return this form to the High School Counselor's Office this week.

School, Civic, or Church Related Clubs (include offices held): _____

Work and Job Experiences (full or part-time): _____

Volunteer Activities:

Awards, Honors, and Significant Performances:

Other (anything else of significance such as an important life experience):

APPENDIX D

Parent Questionnaire

GIFTED AND TALENTED PROJECT
TEXAS A&M UNIVERSITY

PARENT QUESTIONNAIRE

Participant Name_____ Date:_____

Parent Name_____

PLEASE RESPOND TO THE FOLLOWING STATEMENTS BY CIRCLING THE NUMBER WHICH BEST CORRESPONDS WITH YOUR OBSERVATIONS OF THE PARTICIPANT.

	Never	Seldom	Frequently	Always
1. The participant shows interest and enthusiasm toward completing school assignments.	1	2	3	4
comment:				
2. The participant discusses at home the activities of the project.	1	2	3	4
comment:				
3. The participant exhibits positive attitudes toward the project.	1	2	3	4
comment:				
4. The participant demonstrates a realistic approach to decision-making in the selection of a career interest field.	1	2	3	4
comment:				

APPENDIX E

Teacher Questionnaire (Original)
Teacher Questionnaire (Revision)

GIFTED AND TALENTED PROJECT
TEXAS A&M UNIVERSITY

TEACHER QUESTIONNAIRE (Original)

Student Name_____ Date_____

Teacher Name_____ Subject_____

Class absences for month_____

PLEASE RESPOND TO THE FOLLOWING STATEMENTS BY CIRCLING THE NUMBER WHICH BEST CORRESPONDS WITH YOUR OBSERVATIONS OF THE STUDENT.

	Never	Seldom	Frequently	Always
. The student completes all classroom assignments.	1	2	3	4
comment:				
. The student cooperates with peers during classroom activities	1	2	3	4
comment:				
. The student exhibits disruptive behavior in the classroom.	1	2	3	4
comment:				
. The student shows interest toward subject content of class.	1	2	3	4
comment:				
. The student shares information that has been gained through project experiences.	1	2	3	4
comment:				

GIFTED AND TALENTED PROJECT
TEXAS A&M UNIVERSITY

TEACHER QUESTIONNAIRE (Revision)

Any innovative program that has a research base seems to generate a lot of paper work. We recognize that completing these forms must seem extremely repetitious. It does assist both the school and the university in assessing the productivity of the program, however.

The questionnaire has been revised based on your suggestions. Please use the comment section or the reverse side of the questionnaire to share any information you may care to include.

Thank you for taking a few minutes from your schedule to respond.

Student Name _____ Date _____

Teacher Name _____ Subject _____

PLEASE RESPOND TO THE FOLLOWING STATEMENTS BY CIRCLING THE NUMBER WHICH BEST CORRESPONDS WITH YOUR OBSERVATIONS OF THE STUDENT.

	Never	Rarely	Sometimes	Frequently	Very Frequently
1. The student completes all classroom assignments.	1	2	3	4	5
Comment:					
2. The student cooperates with peers during classroom activities	1	2	3	4	5
Comment:					
3. The student exhibits disruptive behavior in the classroom.	1	2	3	4	5
Comment:					
4. The student shows interest toward subject content of class.	1	2	3	4	5
Comment:					
5. The student shares information that has been gained through the Gifted & Talented Project experiences.	1	2	3	4	5
Comment:					

DISCLAIMER

The material in this publication was prepared pursuant to a grant or contract from the Office of Education, U.S. Department of Health, Education, and Welfare. However, points of view or opinions expressed do not necessarily represent policies or positions of the Office of Education.

APPENDIX F

Phase 1 - Guidance Lab Report

GIFTED AND TALENTED PROJECT
TEXAS A&M UNIVERSITY

PHASE 1 - GUIDANCE LAB REPORT

Student Name _____

Date _____

1. List the activities which were most beneficial to you this week.

2. List the activities which were least beneficial to you this week.

3. List activities you would like to actively participate in during the Guidance Laboratory that would contribute to your career development.

4. What would you like to see changed about the Guidance Lab.

APPENDIX G

Mentor/Supervisor Questionnaire

GIFTED AND TALENTED PROJECT
TEXAS A&M UNIVERSITY

MENTOR/SUPERVISOR QUESTIONNAIRE

Participant Name _____ Date _____

Mentor/Supervisor Name _____ Interest Area _____

PLEASE RESPOND TO THE FOLLOWING STATEMENTS BY CIRCLING THE NUMBER WHICH BEST CORRESPONDS TO YOUR FEELINGS CONCERNING THE PROJECT AND YOUR OBSERVATIONS OF THE PARTICIPANT.

	Strongly Disagree	Disagree	Agree	Strongly Agree
1. The project was described adequately to me by the staff.	1	2	3	4
Comment:				
2. The information packet was helpful in describing my responsibilities.	1	2	3	4
Comment:				
3. The time allotted for students to spend with me per day was sufficient.	1	2	3	4
Comment:				
4. Upon entry into this mentorship/internship, participant demonstrated adequate knowledge of the chosen career field.	1	2	3	4
Comment:				
5. Student displays positive attitude and enthusiasm toward his/her chosen career field.	1	2	3	4
Comment:				

	Strongly Disagree	Disagree	Agree	Strongly Agree
6. Weekly meetings with the project staff are beneficial:	1	2	3	4
Comment:				
7. The mentor-supervisor/student relationship is meaningful in terms of discussions held, ideas exchanged and experiences shared.	1	2	3	4
Comment:				
8. My participation in the mentorship/internship phase did not cause any significant inconvenience in the performance of my job responsibilities.	1	2	3	4
Comment:				
9. I would be willing to serve again as a mentor/supervisor if this project were replicated	1	2	3	4
Comment:				
10. This student, in my opinion, is appropriately labeled as gifted and/or talented.	1	2	3	4
Comment:				

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APPENDIX H

. Student Questionnaire, Mentorship Phase

. Student Questionnaire, Internship Phase

. Follow-up Evaluation by Students

GIFTED AND TALENTED PROJECT
TEXAS A&M UNIVERSITY

Participant Name _____ Date _____

PLEASE RESPOND TO THE FOLLOWING STATEMENTS BY CIRCLING THE NUMBER WHICH BEST CORRESPONDS TO YOUR FEELINGS CONCERNING THE PROJECT DURING THE PREVIOUS TWO WEEK PERIOD.

	Strongly Disagree	Disagree	Agree	Strongly Agree
1. Mentorship experiences have been beneficial to me.	1	2	3	4
Comment:				
2. Supervision during mentorship has been beneficial.	1	2	3	4
Comment:				
3. Mentorship experiences have been above my level of understanding.	1	2	3	4
Comment:				
4. Mentorship experiences have been below my level of understanding.	1	2	3	4
Comment:				
5. My career plans have not changed as a result of the mentorship experience.	1	2	3	4
Comment:				
6. Contact with C.D.O.P. staff has been adequate.	1	2	3	4
Comment:				

	Strongly Disagree	Disagree	Agree	Strongly Agree
7. The guidance lab. adequately prepared me for mentorship.	1	2	3	4

Comment:

---

8. The bi-weekly seminar is/is not something I look forward to because:

Disclaimer

GIFTED AND TALENTED PROJECT
TEXAS A&M UNIVERSITY

STUDENT (INTERNSHIP) QUESTIONNAIRE

Any innovative program that has a research base seems to generate a lot of paper work. We recognize that completing these forms must seem extremely repetitious. It does assist both the school and the university in assessing the productivity of the program, however.

The questionnaire has been revised based on your suggestions. Please use the comment section or the reverse side of the questionnaire to share any information you may care to include.

Thank you for taking a few minutes to respond.

Student Name _____ Date _____

PLEASE RESPOND TO THE FOLLOWING STATEMENTS BY CIRCLING THE NUMBER WHICH BEST CORRESPONDS TO YOUR FEELINGS AT THIS POINT DURING THE PROJECT.

	Never	Rarely	Sometimes	Frequently	Very Frequently
1. The information and experiences in the mentorship phase of the project are relevant to my internship.	1	2	3	4	5
Comment:					
2. The information and experiences of the guidance lab phase of the project are relevant to my internship.	1	2	3	4	5
Comment:					
3. Internship experiences are useful to me because:					
(a) I am gaining insight into the life styles of those in my career field.	1	2	3	4	5
(b) I am gaining insight into my own needs and interests.	1	2	3	4	5
(c) I am gaining information about my chosen career field.	1	2	3	4	5
4. My place of work (during internship) corresponds well to my career field interest.	1	2	3	4	5
Comment:					
5. I am convinced that my choice of career field is right for me.	1	2	3	4	5
Comment:					

	Never	Rarely	Sometimes	Frequently	Very Frequently
6. I am generally pleased with my internship placement.	1	2	3	4	5

Comment:

---

7. What aspects of the internship would you change if you could?

8. Briefly describe activities and experiences occuring in internship, during this reporting period. Include the types of responsibilities you have and a representative daily shcedule.

(Name) (Date)

1. In considering my experience in the Gifted & Talented Career Education Program during 1976-77, if I had known in September exactly what I would have been doing during the year, I would have (check one):

_____ chosen to remain in the regular classroom at the high school.

_____ chosen to participate in this program.

Why? _____

2. If I were planning the Gifted & Talented Career Education Program for next year, I would make the following changes: _____

Why? _____

3. Indicate how beneficial you found each of the project phases by circling the appropriate numbers:

	no benefit	little benefit	medium benefit	above average benefit	extreme benefit
. Guidance Lab	1	2	3	4	5
. Mentorship Phase	1	2	3	4	5
. Internship Phase	1	2	3	4	5

4. Which of the following changes in the GUIDANCE LAB would have made your experience in the project more beneficial? (Check one or more of the following):

_____ Wider range of exposure to various career alternatives.

_____ More specific information on your favorite career field(s).

_____ None of the above.

List other suggestions: _____

_____

_____

_____

5. Which of the following chages in the MENTORSHIP would have made your experience in the project more beneficial? (Check one or more of the following):

_____ Broader exposure to more facets of my career field.

_____ More intense exposure to sub-specialties of my career field.

_____ Mentorship experiences should have been more related to my career field.

_____ None of the above.

List other suggestions: _____

_____

_____

_____

6. List activities of the MENTORSHIP which best prepared you for Internship. (Disregard if you were not placed in an Internship.)

_____

_____

_____

_____

7. List activities of the MENTORSHIP which were least relevant to your Internship. (Disregard if you were not placed in an Internship.)

8. My career goal for the future seems to be:

9. My plans for 1977-78 are these:

10. My parent's home mailing address is:

11. My fall mailing address will be:

APPENDIX I

Newspaper Articles

TIME TO KNOW

FACTS ABOUT
A&M CONSOLIDATED SCHOOL DISTRICT

AUGUST, 1976
VOL. III College Station, Texas 77840 No. 1

HS gifted program planned

A&M Consolidated high school students identified as gifted students will be selected to participate in a special career decisions program at TAMU.

A special $60,000 federal grant has been awarded TAMU educational researchers for this program.

The announcement concerning this project was made by U.S. Rep. Olin "Tiger" Teague.

Drs. Christopher Borman and William Nash, educational psychologists, will direct the program which will be studied carefully by HEW as a model program.

Consolidated students will go through three phases in the program. They will spend a full quarter in the counseling laboratories at TAMU's Educational Psychology Department exploring various career options. The second phase will involve working in a department on campus with a professor in a chosen field to gain first-hand knowledge of the discipline. The third and final phase will be an internship to be served in a business in the community or in a job-related area of interest.

Wednesday
August 18, 1976

Consol Project Awarded $60,000

Program For Gifted, Talented Students

BY JERRY GRAY
Eagle Staff Writer

The College of Education at Texas A&M will work closely with A&M Consolidated High School this year on a special career development program for gifted and talented students.

Educational researchers at Texas A&M have been awarded a $60,000 federal grant to help 15 to 20 gifted student with their career decisions during their senior year at the high school.

Doctors Christopher Borman and William Nash, education psychologists at Texas A&M, are currently in Washington at a project directors meeting for those receiving federal funds.

Sharon Colson, career development specialist and principal investigator for the project, says that nominations will be taken through Aug. 26 from students, parents, teachers and counselors.

"We want to attract as many nominations as possible to make it as large in scope as possible," she said.

Student identification for the project will be made in the areas of academic achievement and ability, talent in any aesthetic area, mechanical ability, potential for leadership and qualities of creativity.

Colson emphasizes that a student's nomination need not be based on all five criteria. A nomination may be based on only one or two of the qualities, she says.

The overall thrust of the program, she said, is to "serve special students in a special way," but it is also the hope of the researchers to develop a model program for use in other school districts.

The three phases of the program will directly coincide with the first three quarters of the school year. The fourth quarter is the summer session.

The first phase of the program is a guidance stage, when career fields will be identified and students will be provided career information. Guest speakers will also visit the campus for further career information. All activities will be conducted in the educational psychology lab at Texas A&M during the regular school day.

And students will receive high school credit for their participation.

The second phase is called a mentorship, when students will observe specialists in their career roles. Educational psychologists call this phase a "shadowing" experience.

The final phase will be an actual work internship, when the student will actually be employed in local businesses. The students will be paid for their work.

Colson said there shouldn't be any problem placing them in jobs.

"If we had to work with more than 15 to 20 students, we might have a hard time placing them," she said, "but with this number we shouldn't have any problem."

Graduate students at Texas A&M will work on the project keeping records and counseling as well as providing career information. Graduate assistants are Robert Godsey, M.K. Evers and Betty Cummings Mayfield.

Colson heralds this program as a unique learning opportunity where students can explore many career fields.

"But we aren't interested in locking the students into a particular career field," she says. We want to show them all the possibilities.

She says people might not change careers as often as they do if a program like this were available.

THE EAGLE/ Bryan-College Station, Texas Thursday, October 7, 1976 Page 7A

Career program for CHS seniors

Seniors at A&M Consolidated High School have been provided with a unique opportunity to determine their career choices.

On the basis of creativity, leadership potential, mechanical ability, aesthetic talent, and academic achievement, twenty students were selected to participate in the Gifted and Talented Students Program.

The program consists of three phases: the Gudance Laboratory, in which participants identify tentative career interest areas; the Mentorship Laboratory, a shadowing experience under a Texas A&M University (TAMU) professor of advanced studies; and the Working Internship, during which the students are placed in on-site work experiences.

Sponsors of the activity are the A&M Consolidated Independent School District, TAMU Center for Career Development and Occupational Preparation, and a grant from the United States Office of Career Education.

Students participating are Damon Buffington, John Vastano, Dwayne Parsons, Amy Plapp, Randall Ray, Meg Bury, Julia Crawford, Wallace Harwood, Lauren Stacell, Martha Lambert, Helen Marquis, Dennis Chester, Priscilla Files, Scott Saunders, Karen Mallett, Mark Dixon, Karen Aberth, Julia Straw, Michael Earle and Jaqui Freund.

Page 2A THE EAGLE/Bryan-College Station, Texas—Saturday, October 30, 1976

Who's Who nominees announced

Twenty-four junior and senior students at A&M Consolidated High School have been nominated for Who's Who Among American High School Students according to Judith Comstock, National Honor Society sponsor.

High school faculty members made the nominations, which included four juniors and 20 seniors.

Juniors recognized for this honor are Jana Anderson, Peter Bussett, Lanette Buffington and Linda Preston.

The seniors named are Cindy Benton, Damon Buffington, Margaret Bury, Julia Crawford, Mark Dixon, Priscilla Files, Laurel Keese, Peggy Kapchinski, Tim Lyda, Martha Lambert, Ronald Morgan.

Also, Eugenia McMullan, Helen Marquis, Amy Plapp, Randy Ray, W. Scott Saunders, Lauren Stacell, Julia Straw, John Vastano and Margaret Wythe.

(Names underlined are project participants)

THE EAGLE/Bryan-College Station, Texas—Saturday, November 20, 1976

Four local high schoolers to be honored by Optimist Club

As part of Youth Appreciation Week, the Optimist International has selected four local high school seniors to recognize as outstanding youth leaders.

The week of Nov. 14 to Nov. 20 was designated Youth Appreciation Week by Bryan Mayor Lloyd Joyce in cooperation with the Optimist Club observation.

The four students honored were Paul Lampe and Pamela Sue Williamson of Bryan High and Ronnie Morgan and Martha Lambert of A&M Consolidated.

Pamela Sue Williamson is secretary of the student body at Bryan High School, a member of the band and a member of the Alternative academic program.

Martha Lambert is secretary-treasurer for the A&M Consolidated High School student body, a [illegible] of the Fellowship of Christian Athletes, a member of the National Honor Society and a member of the yearbook staff.

Paul Lampe is president of the Bryan High School student body, a tackle on the football team, a member of the [illegible] of Christian Athletes and a member of the Alternative program.

Ronnie Morgan is president of A&M Consolidated High School's student body, a member of the National Honor Society, a player on the basketball team, a member of the tennis team and a member of the basketball team.

THE EAGLE, Bryan College Station, Texas Thursday, November 18, 1976

Consol senior enjoys various interests

A Profile

BY AMY PLAPP
A&M Consolidated
High School

"Among the places I have lived, College Station is unique. Everything is university-oriented, and as a result we are sheltered from the 'real world,' " observes Meg Bury.

In her 17 years, California, Arizona, Montana, and Virginia, as well as Texas, have been home to the A&M Consolidated High School (CHS) senior.

Meg plays bass clarinet in the high school Symphonic Band, is taking a music theory class, and sings in the CHS Honor Choir. A lifetime music lover, she wishes that she'd discovered vocal performance sooner, because "it's such a wonderful experience. Musically, it has really helped me a lot."

The talented instrumentalist is planning a career as a music therapist. Music Therapy is the therapeutic application of music to influence behavior, especially the restoration, maintenance, and improvement of mental and physical health.

"Music often soothes me or changes my moods. I believe that it can be very beneficial in providing people with a reason to live or a release for tension," she says.

Meg feels that she often learns more outside of school, especially while traveling, than she does in school. "I tend to agree with people who say that our entire educational system needs to be revised and revived," she comments.

She prefers classes that call for "figuring things out," particularly math and chemistry courses.

Although she admits that "languages don't come easily to me," Meg has achieved a fair amount of proficiency in both German and French. She feels that public schools should have a foreign language requirement, with emphasis at the elementary school level.

"All European schoolchildren are taught English. Why shouldn't each of us follow that example and learn a second language?"

Meg has been a Girl Scout for ten years, and she vows to remain one for the rest of her life. "I've gained so much from Scouting, and I feel I owe the same opportunities to someone else." She is president of the local association, and serves on the Council Board and Program Committee.

Meg has traveled to Mexico, Wyoming, and Philadelphia with other Scouts, meeting girls from all over the world.

"I've learned a lot about other people. Once you understand their backgrounds, you can get along with almost anyone.

"One of the best things about working with other Girl Scouts has been the feeling of togetherness, of working towards a common goal."

The International Congress '76 she attended in Philadelphia was a valuable learning experience. At the conference, she studied the interaction involved in urban living situations.

"I don't know how I'd feel about living in a large city," she reflects. "It seems like you have to compromise so much of yourself in city life."

A staunch nature enthusiast, Meg enjoys backpacking, canoeing, and camping.

"I've had chances to see nature at its best — when it's taken care of; and at its worst — when it's not taken care of."

She says that all her principles are based on a strong feeling for the natural environment.

Meg feels that as people in our society become better educated and more intellectual, they seem less aware of the world around them.

"Sometimes I think people are too smart for their own good. They need to 'go back to nature,' to gain an understanding of what it's like to live primitively."

MEG BURY, 17-year-old daughter of Mr. and Mrs. Richard Bury of College Station, is looking forward to a career in music therapy.

(Written by a participant about a participant)

Consol student anticipates future in national politics

A Profile

By AMY PLAPP
A&M CONSOLIDATED HIGH SCHOOL

A career in national politics is a long-range goal for 17-year-old Randy Ray. Politics are nothing new to the A&M Consolidated High School (CHS) senior, who has been active in student government on both the local and state level while in high school.

Randy is president of the Pan American Student Forum (PASF) of Texas, an organization of 9,990 high school students in 200 chapters across the state.

PSAF began as a national organization in 1927 but fell on hard times in the early years of World War II. PASF of Texas has been in existence since 1943, and is sponsored today by the Good Neighbor Commission of Texas.

Randy's most important functions as president are to keep in touch with the various chapters, and to do his best to insure a successful state convention.

"Keeping up with all the correspondence is hard. I have to keep in touch with the other officers, constantly send in new ideas to the state office, and write articles for the newsletter, the Pan-Am Times."

"The basic purpose of PASF is to promote understanding among the people and cultures of American nations through the use of language as communication," explains Randy.

The annual state convention, held in March, is the main activity of PASF. At the convention, business meetings, workshops, a talent show, and social events are held, and the st cers are elected a led.

Keynote speaker at the 1976 convention was U.S. Senator Lloyd Bentsen, and this year the speaker of the Texas House of Representatives, Bill Clayton, will be a guest.

In addition, Chapters across the state make donations to various charities, including a Mexican orphanage, and to a student scholarship fund through PASF.

Randy has taken the equivalent of four years of high school Spanish, and spent parts of two consecutive summers living in Mexico with a group of high school students. "People everywhere are basically the same," reflects Randy. "Our cultures make us different, but not so different that we can't get along with each other."

"In my opinion, it's egotistical for English-speaking people to always expect others to learn our language. You narrow your scope of knowledge by only knowing one language.

"I believe that this is especially true in advanced areas of study, where everything is not written in English and you severely limit yourself by not learning additional languages."

Randy feels that, in general, learning foreign languages is an excellent idea. "If you go into it with the right attitude, learning a language can give you a better understanding of other people and widen your own opportunities."

"Consolidated has one of the best foreign language departments in the state, but as a rule such programs are ignored in public schools," he observes. "There seems to be a trend towards less emphasis on languages in education. I especially deplore the waiving and laxness of the language requirements in recent years at colleges and universities."

Randy has been treasurer of El Club Castellano, the CHS Spanish club, and also has served as junior class treasurer and senior representative.

Randy, a 1977 National Merit Scholarship semifinalist, has received a principal nomination to the Naval Academy from Congressman Olin E. Teague. He is also the recipient of a four-year Army ROTC scholarship based on overall academic and extra-curricular achievement.

Next year he hopes to attend college in his home state of Oklahoma. Later plans include law school and a private practice, perhaps dealing with cases of criminal law. His ultimate goal, however, remains a future in the many-faceted world of national politics.

RANDY RAY, 17-year-old son of Mr. and Mrs. Eugene H. Ray of College Station, already holds a statewide elected position.

(Photo by Kenny Davidson)

(Story about a participant by a participant)

Performing arts important in education, says Consol senior

A Profile

By AMY PLAPP
A&M Consolidated High School

"I believe that experience in different aspects of the performing arts is a significant part of an education," says 17-year-old Jaqui Freund. "It teaches kids to express themselves in front of other people, which is important because you need to be able to communicate with the world around you."

Jaqui is a student at A&M Consolidated High School (CHS). She plays flute and piccolo in the marching and symphonic bands, belongs to Troupe 919 of the International Thespian Society, and is a member of the staff of the high school newspaper, the **Paper Tiger**.

"I really enjoy music," says Jaqui, who was named to 1975-76 All-District Band. "and band is one of the best things I've done in high school. It's a lot of hassle sometimes, but it's worth it."

The Tiger Band has been a consistent University Interscholastic League (UIL) Sweepstakes Award winner in past years, and Jaqui shares a pride in these accomplishments with many other band members. "It's gratifying to set a goal and achieve it as a member of a group," she reflects.

The Consol senior also plays piano and particularly enjoys jazz improvisation. "I express myself through my music."

Jaqui has participated in summer theatre groups for the past five years. She has acted major roles in many plays, including **The Miracle Worker, To Kill a Mockingbird**, and **The Wizard of Oz**.

The award of Best Thespian for 1976 at CHS was presented to Jaqui in her junior year. She also served as president of the drama club at that time.

"Working in the theatre is a lot of fun," she says, "but I haven't been as active this year as in the past because it's no longer a top priority with me."

Like most high school seniors, Jaqui is looking forward to graduation this spring. "I think our school does a pretty good job of educating its students, but I feel that more emphasis should be placed on education and less on rules and regulations. I would also like to see liberal arts stressed more."

Jaqui is a participant in Texas A&M's career education program for gifted and talented high school students. Under the guidance of TAMU professor Dr. Arnold LeUnes, she has been exploring different areas of the field of psychology and performing experiments in biofeedback. She plans to do volunteer work at the Brazos Valley Mental Health and Mental Retardation Center in the near future.

Next year, she will enroll in Sam Houston State University as a psychology major. "I want to be a counseling psychologist so I can work with and help people, which I've always wanted to do," explains Jaqui. There are a lot of people around who need help."

"I think the hardest thing about counseling is that before I can help other people, I've got to get myself together."

(Written by a participant about a participant)

"I've always wanted to help people," says Jaqui Freund, the daughter of Dr. and Mrs. R.J. Freund of College Station. She hopes to become a counseling psychologist.

Page 9 February, 1977
Time To Know

CONGRATULATIONS

A special congratulations goes to three A&M Consolidated High School students who produced a 30 minute television program entitled "CHS: What Next?"

The special documentary program was aired on two occasions by KAMU-TV. under the directing and planning of Dr. Mel Chastain, director of Educational Television at KAMU.

The students were working with Dr. Chastain in phase two of the Gifted and Talented Program.

Presenters of the program were Amy Plapp, Julia Crawford and Dwayne Parsons.

We would also like to extend a special thanks to Dr. Chastain for the time and effort he devoted to this program.

(Mentorship product by 3 participants)

Teague names appointee to naval academy

Congressman Olin E. (Tiger) Teague has announced the appointment of five young men from the 6th Congressional District of Texas to the U.S. Army, Naval and Air Force academies.

Cong. Teague represents the 6th Congressional District in Washington.

Randall G. Ray of College Station was one of the appointments. He will attend the U. S. Naval Academy.

Ray is the son of Mr. and Mrs. Eugene H. Ray, and he is a student at A&M Consolidated High School.

(Randall Ray is a project participant)

KAMU-TV TO AIR STUDENT SPECIAL

A KAMU-TV special will be aired at 9 p.m. Thursday, Feb. 24 and again at 6:30 p.m. Sunday, Feb. 27.

The 30 minute show tells the story of "CHS-What Next!". It is produced by three Consolidated students in the Gifted and Talented program. Dr. Mel Chastain worked with the students.

CHS purpose explored

What are the objectives of A&M Consolidated High School? Three CHS seniors, with the guidance of KAMU station manager Mel Chastain, will try to answer this and related questions in a 30-minute television documentary entitled **CHS: What's Next?** to be aired at 7:30 p.m. February 23 on Channel 15.

In a series of interviews and group discussions, administrators, teachers, students, and other members of the community explore the purposes and objectives of CHS.

To many, secondary education is much more than books and classrooms. The hope was expressed that high school, by providing experiences in getting along with people, will prepare young people to survive happily in a non-academic world.

Most of those interviewed agreed that a greater emphasis on vocational education is needed at CHS.

Currently, Consol juniors and seniors can enroll in work-study programs or participate in vocational classes at nearby Bryan High School.

However, so many of the courses and extra-curricular offerings at CHS seem geared towards the college-bound pupils that other students can find their needs overlooked.

In the half-hour program, Consol students are depicted in the classroom, laboratory, and recreational settings that make up their high school experiences.

The three students conducting the interviews and developing the program were Julia Crawford, Dwayne Parsons, and Amy Plapp.

The KAMU mini-cam has become a familiar sight in the halls at Consolidated. Here KAMU Station Manager Mel Chastain explains camera technique to Amy Plapp and Dwayne Parsons.

A&M Consolidated Superintendent of Schools Fred Hopson discusses the content of the 30-minute television special with CHS seniors Dwayne Parsons, Amy Plapp, and Julia Crawford.

Meg Bury attends international Scout camp

Meg Bury, center, teaches scouts Christine Mueller, left, Leslie Pedulla and Sara Kothmann, right, camping skills.

The Eagle, Aug. 28, 1977

(Photo by Bill Meeks)

Meg Bury of College Station camped with scouts from 19 countries in Denmark and Sweden during an international opportunity sponsored by the Girl Scouts USA.

As one of 12 scouts selected from the United States, she explored the natural beauty of the Scandinavian countries in primitive camp settings. She attended Landslejar '77, a national camp in Denmark held once every five years, and Dalacamp '77, an annual camp held in Sweden.

(Meg Bury is a project participant)

(Cont. on page 118)

(Cont. from page 117)

Approximately 140,000 attended the Danish camp, Meg explained, adding that the crowd made it seem less like a camp and more like a convention when all 140,000 were gathered together. Most of those attending were from Denmark, however, 19 other countries were also represented including China, Japan, South Africa, Rhodesia and Scotland.

The campers were divided into subcamps and smaller groups however, so the number of people was not overwhelming. Approximately 50 campers were fed at Meg's camp each evening. Each group made tables, refrigerators and constructed shelters by lashing logs together with rope.

Camping with the Danish scouts gave her an insight into the people of Denmark not always seen by tourists, she said.

"The Danes have a great sense of humor. They enjoy life and being in Denmark. To them, Denmark is the center of the world."

In Sweden, the scouts and adults from the United States were in the same patrol, providing their own shelter and cooking their own food.

In some ways it was better for the Americans to be in the same patrol together, she says. "When I was with the Danes it was easier for them to do some things themselves rather than explain to me what to do. I never felt like I was carrying my load," said the recent graduate of A&M Consolidated High School.

Approximately 2,400 teenagers attended the Swedish camp. Scouting in Sweden is open to both boys and girls of all ages, so, unlike Girl Scout camps in the United States, the Swedish camp was co-educational.

"The guys naturally took over," Meg, said. "I could see that in America I wouldn't have gotten as many skills in scouting if boys had been in the troops."

In Sweden, however, the co-educational program works well, she added.

The Danish camp was more religiously oriented than camps in the United States. One hour each morning was devoted to Bible study or meditation.

Between each 10 day camp session, Meg lived with a hostess family in each country, where she got a closer look at family life and the culture of each country.

Her Danish host family included a son, 22, and a daughter, 19.

"It was like my family," Meg said. "My sister is 21 and I'm 19."

In Denmark she was impressed with how people conserved the country's natural resources.

"They don't have room to be wasteful," she explained.

While her host family introduced Meg to the [illegible] of life, Meg shared some American customs and food with her hosts and hostesses. Meg and another scout from the United States served their host families chili and apple pie.

Both foods were new to the Danish families, however in Sweden, Meg found it difficult to introduce something about America that the Swedish people didn't already know about.

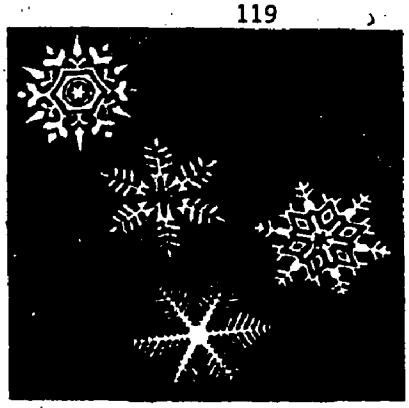
When the six week tour ended, the scouts returned to New York where they met others returning from Girl Scout international opportunity in Africa. Both groups compared experiences before returning to their homes.

Meg is now on her way to Sterling College in Kansas. Although she will be leaving Bryan-College Station, she will not be leaving Girl Scouting behind. In Kansas she will assist troop leaders and describe her international camping trip to local Girl Scouts and scouts in Kansas.

This is part of an agreement she made with Girl Scouts USA before the international experience. Most of her travel expenses were paid by the Juliet Low World Friendship Fund, the Bluebonnet Girl Scout Council, with the help of her local senior association and other area troops.

Two more years in Girl Scouts might not be enough for Meg who plans [illegible]

One-Year, Expense-Paid Study



Snowflake logo signifies that no two gifted and talented students are alike.

Gifted and Talented Seniors in Texas Career Education Project

Fifteen participants, and five alternates, were chosen from 48 nominees for the Career Education for Gifted and Talented project at Texas A & M University (TAMU). One academic year, at no cost to the participating students, was offered through a grant from the U.S. Office of Education, Office of Career Education. TAMU's Center for Career Development and Occupational Preparation, College of Education, was awarded the grant to demonstrate the most effective methods and techniques in career education for gifted and talented high school students. Co-directors are Christopher Borman and William Nash.

The 20 Seniors selected, 11 young women and 9 young men, are from the A & M Consolidated Independent School District, College Station, Texas, approximately 100 miles northwest of Houston. Students were nominated by teachers, counselors, parents, or even nominated by themselves.

"The selection processs was based on multiple criteria with equal weight being assigned to each area," said Sharon Colson, the project's principal investigator.

The screening committee from Texas A & M based their selections on the students' academic achievement and ability, talent in any aesthetic area, mechanical ability, potential for leadership, and qualities of creativity. The three phases of the project are Guidance Laboratory Experience, Mentorship Laboratory Experience, and Working Internship Experience.

"We are in the early stages of Phase Three," Colson wrote, early in the year. "Working-internship sites directly relate to the Mentorship Experience. Work sites span much of the community — the County Attorney's Office, a consulting engineering firm, a night club, radio and television stations — and others."

In the first two phases, the students spent a regular school-day schedule at TAMU. They investigated and evaluated, in Phase I, their interest areas and they tentatively identified future careers, using the facilities of the Educational Psychology Laboratory. The students then became observers in specialized areas, directed by a university professor of advanced studies, in a "shadowing" or mentorship experience for Phase II. Mentorships included the following university departments: English (theater arts), Political Science (law), Electrical Engineering (data processing), Communications (television), Psychology, Curriculum and Instruction, Civil Engineering, Physics, Wildlife and Fisheries, Marketing; and also the entertainment and music (instrumental) areas.

"All facets of the program seem to be working well," Colson added. "We are proud of the success we are having in combining the expertise of the public school, the university, and the community to better serve the needs of tomorrow's leaders."

Deadline for *Bulletin* articles is the 1st of each preceding month.

National/State
Leadership Training Institute
on the Gifted and the Talented

Irving S. Sato, Director
[illegible]
Los Angeles, CA [illegible]
(213) 480-7470

David M. Jackson, Executive Director
11539 Maple Ridge Road
Reston, VA 22090
(703) 437-8686

PLEASE DIRECT
ALL BULLETIN INQUIRIES
TO LOS ANGELES OFFICE.

Ventura County Superintendent of Schools
[illegible] Office Building
[illegible]

Sharon Colson
Principal Investigator
Center for Career Development
Texas A & M University
College Station, TX 77843

Address Correction Requested. Forwarding and Return Postage Guaranteed.
DATED MATERIAL — PLEASE RUSH!!

APPENDIX J

Directions for Scenario

DIRECTIONS FOR SCENARIO

Write a scenario of a day or week in your life as it might occur in the year 2001. A scenario is simply a description of a sequence of events that might possibly happen in the future. A scenario is usually developed by studying the facts of a situation and selecting a development that might occur, and imagining the range and sequence of events that might follow. Use the facts you have about yourself, the occupation you have described, and the future and try to imagine a specific day or week in the year 2001. Describe what you will be doing, where you will be, whom you will be with, what will be happening in the world, and how you will feel about all of these things.

APPENDIX K

Monograph of the Project

APPENDIX L

Third Party Evaluation

SYNTHESIS

- Follow-up Evaluation by Students
- Pre-Post Data Comparisons
- Overall Project Evaluation
- Recommendations for Future Planning

PURPOSE

The purpose of the program is to demonstrate the most effective methods and techniques in Career Education for gifted and talented high school seniors.

PHASE III

Working Internship Experience

- Career Field Experiences in Local Business or Profession
- Application of Theory to Practice
- Specialized Vocabulary Expansion

- Determination of Screening Process
- Screening Site Determination
- Screening Schedule and Time Line Decisions
- Establishment of Maximum Number of Participants
- Students Must Have Reached Senior Standing

PHASE II

Mentorship Laboratory Experience

- Shadowing Experience with University Professor
- Advanced Study
- Hands-on Experiences
- In-depth Career Field Exploration

- Participant Selection

  A series of tests will be administered to all nominees. Selections will be made by the screening committee from Texas A&M University in keeping with the guidelines set forth in the contract with the United States Office of Education.

- Identifiers

  Academic Achievement and Ability

  Talent in any Aesthetic Area

  Mechanical Ability

  Potential for Leadership

  Qualities of Creativity

PHASE I

Guidance Laboratory Experience

- Pre-test for Monitoring Growth and Change
- Self-Investigation
- Career Exploration—Materials, Media, Resource Speakers
- Post-Secondary Training and Educational Opportunities
- Isolation of Career Interest Areas
- Mentorship Interviews
- Mentorship Placement
- Evaluation

Student Identification

- Development of a Program Brochure
- Promotion of the Program
- Nomination Process

  STUDENTS who wish to be considered as participants may place their names in nomination.

  TEACHERS and COUNSELORS whose experiences with students have revealed gifted and talented potentialities should place the names of these students in nomination.

  PARENTS of students may place their children's names in nomination.

- Screening Procedure

- Specialized Vocabulary Development
- Seminar Dialogue
- Identification of Working Internship Interest Area
- Interviews with Supervisors at Internship Sites
- Internship Placement
- Evaluation

PREFATORY DESIGN

Planning for Implementation

- Review of Current Literature
- Selection and Purchase of Career Development Materials
- Identification of Criteria for Student Selection
- Work-Related Responsibilities
- School-to-Work Transition
- Post-Secondary Career Field Needs
- Post-Tests for Growth and Change Measurement
- Evaluation

All programs for gifted and talented students at the Center for Career Development and Occupational Preparation at Texas A&M University use the logo, "Snowflakes," because snowflakes represent the uniqueness of both the programs and the student: "No two are alike."

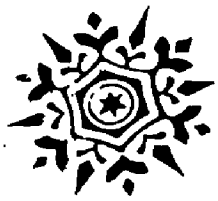
Center for Career Development
and Occupational Preparation
College of Education
Texas A&M University

DURATION OF THE PROJECT

One Academic Year

COST TO STUDENTS

None



PREREQUISITES

Each Phase of the program requires a two-hour time block in the student's schedule.

Admission to Texas A&M University and any of its sponsored programs is open to qualified individuals regardless of race, color, religion, sex, national origin or educationally-unrelated handicaps.

"No Two Are Alike!"

Disclaimer

APPENDIX L

Third Party Evaluation

EDUCATIONAL SYSTEMS ASSOCIATES, INC • serving learning through science

FINAL AUDIT SUMMARY REPORT

Gifted and Talented Program

Center for Career Development and
Occupational Preparation
Texas A&M
College Station, Texas

Submitted by:
Educational Systems Associates, Inc.
Bruce Read, President

July, 1977

PREFACE

This report, while brief (due to the limited role of the auditor) reflects the auditor's role and provides a summary of the major recommendations made to the project.

As a point of interest, the auditor must mention his high regard for the project staff, in that:

- The recommendations and considerations made by the auditor were accepted openly and seriously, with most being readily incorporated into the project.

- The staff was most cooperative with and accommodating to the auditor, allowing "team" approach discussions rather than monologues.

- The staff was concerned with working by the guidelines rather than just doing enough to get through.

ON-SITE ACTIVITIES

A major portion of the program auditor's activities involved a series of on-site visits to the project. The primary purpose of these visits was to monitor the accomplishment of project activities and to provide assistance and guidance to the project evaluation effort:

Three on-site visits were conducted by the ESA consultant on the following dates:

- September 21, 1976 - Pre-Evaluation Critique Visit
- January 13, 1977 - Evaluation Process Visit
- July 7, 1977 - Final Evaluation Report Visit

Pre-Evaluation Critique Visit

This visit was primarily concerned with the project's evaluation start-up activities. The thrust was to insure that appropriate evaluation strategies were being employed to allow the staff to conduct the evaluation in an orderly manner and to insure the proposed evaluation activities were being implemented.

Evaluation Process

This second visit took place after the project was in full implementation. The emphasis on this visit was focused on assessment techniques and tools to measure the various objectives (e.g., student outcomes, parent reaction, staff and teacher questionnaires, etc.).

Data analysis techniques were also discussed, one result being some finalization to studying "predictor variables" in identification and screening of students.

Final Evaluation Report Visit

This final visit was centered around a review and discussion of a draft copy of the project's Final Evaluation Report. The purpose of this discussion was to offer suggestions on formatting, data organization, and alignment of results data to the project's objectives.

RECOMMENDATIONS

These several recommendations reflect those offered to the project staff throughout the project year. Many have already (during the year) been incorporated into the project.

(1) Write a basic evaluation design (or brief plan) for each phase. This could be done when the specific activities for each phase are finalized. This design might include:

- Who is to be tested or surveyed?
- What tests or survey instruments are to be employed?
- When are the tests or surveys to be administered?
- Any other information related to the collection, analysis, reporting of results, etc.

(2) Specify divisions of labor (to the staff) for the project's evaluation activities. In other words, assign who is to do what, and when it needs to be done.

(3) Include evaluation activities in the project staffs' job descriptions (in line with above #2).

(4) Finalize what instruments or surveys are needed, and establish deadlines for their development.

(5) Establish an "objective filing system" which can be used as an on-going depository for information which needs to be collected throughout the project.

(6) Consider administering the teacher questionnaire less frequently than monthly, since the responses illicited are fairly generic and are not apt to have significant change in short periods of time.

(7) In the final project report to USOE, denote these objectives which deal directly with student impact, thus highlighting those which are of particular interest to that office.

(8) Consider doing an item analysis on the CEMS instrument, only using those areas which relate to the project activities. This insures a higher content validity to the program and may also reflect more significant increases in the results.

(9) (In concurrence with your suggestion) consider scoring the CEMS as a total score - in addition to the various category areas - to provide feedback as to how the students' behavior has changed with regard to career education in general.

(10) Collect student attendance data to be used as an additional indicator of student interest and attitude toward the program. This could be graphed to illustrate any positive trends of increased attendance.

(11) (In concurrence with your comment) try to build in a control group for next year's project. This would be possible by randomly choosing two (2) groups of students from the total group of identified gifted students.

(12) Conduct means ($\bar{x}$) on the parent questionnaires and document their narrative responses to provide supporting qualitative data (which might also be clustered to reenforce some of the statements).

(13) I concur with your recommendation to revise the parent questionnaire, with some more specific/tangible questions. One means of assistance with this task would be to use their comments on the completed surveys, to highlight some possible areas in which you may want to build-in some responses.

(14) Consider the possibility of reducing the number of identification and screening devices used in the project. This may, in part, be possible due to the regression analysis study on predictor variables. This may offer a time and money saver to the project, with little, if any, loss to the strength of the identification process.

(15) Attempt to align learner outcomes (the data gathered as a result of the project) to the project objectives related to learner outcomes. This will enable a clear means of reviewing and studying those accomplishments as they relate to the project's original objectives.

APPENDIX M

Bibliography

Bibliography

Veldman, Donald J. Fortran Programming for the Behavioral Sciences. New York: Holt, Rinehart and Winston, 1967.

Crites, John O. Career Maturity Inventory. Monterey, California: CTB/McGraw-Hill, 1973.

Holland, John L. The Self Directed Search. Palo Alto, California: Consulting Psychologists Press, Inc., 1970.

Edwards, Allen F. Edwards Personal Preference Schedule. New York: The Psychological Corporation, 1959.

Texas Education Agency. Career Education Measurement Series. 1975.

Campbell, David P. Strong-Campbell Interest Inventory. Stanford, California: Stanford University Press, 1974.

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