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ABSTRACT

Several career exploration workshops for nine teams of junior high school teachers, counselors, and administrators were held to: (1) provide an opportunity to learn about and develop skills applicable to the career exploration process, (2) assist the teams in the creation of career exploration program plans for their own schools, and (3) supervise plan implementation which might result in model implications for career exploration programs throughout the state. During the first two weeks, the teams were exposed to group experiences in six discipline areas, which were designed to demonstrate techniques suitable for use in the school setting, while the final weeks were devoted to extended periods of team planning and writing. Results from administration of a pre- and post-evaluation instrument directed toward attitudes and professional concerns revealed that: (1) Home economics teachers were the most similar in perception to the test builder and/or more receptive to attitude change, (2) The counselor group maintained high key selection behavior but showed less change in post response than did mathematics teachers and teachers of other content areas, and (3) All groups re-ordered their professional concerns between pre- and post-tests. Workshop evaluation by the participants revealed a wide variance within the five discipline areas, with industrial arts teachers showing the least disparity within their group. (SB)

THE MARYLAND CAREER DEVELOPMENT PROJECT (K-Adult)

Career Exploration Workshops (Junior High)

Second Progress Report

by

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THE MARYLAND CAREER DEVELOPMENT PROJECT

Grant No. OEG-0-71-5186 (361)

Career Exploration Workshops for Junior
High Educators and Counselors

Year Two

Date

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U. S. Department of Health,
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Office of Education
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CAREER WORKSHOP BUDGET SUMMARY

	Spent	Budgeted	
Salaries and Wages	2395.75	2275.00	
Travel	1244.59	2600.00	1
Orientation & Dissemination	538.81	600.00	
Tuition and Fees	3250.00	3300.00	
Adult Education Facility	240.95	-------	
Supplies	1055.37	1325.00	
Consultants	1365.00	2000.00	
Implementation	0.00	5000.00	2
Encumberance 3	2000.00		
Total	$12,090.47	$18,100.00	

#1 includes housing, meals, and travel stipend for qualified participants

#2 matching funds held in reserve by State for teams. Teams securing county support for their inventoried requests up to $500 would be assured of an amount not to exceed $500 from the Project.

#3 Evaluation team's expenses

CHAPTER ONE

INTRODUCTION

From June 21 to July 30, the second career exploration workshops for junior high school teachers, counselors, and educators were held on the campus of the University of Maryland, College Park. These workshops involved a number of five-member teams who had been chosen by their school administrators and county supervisors.

Rationale for the selection of two additional staff members to increase original* team membership to five was supported by the workshops' longitudinal objective, e.g. to widen the disciplinary involvement within participant schools. A team approach to career exploration for all students was stated through the following objectives:

a. To bring together counselors, teachers and administrators so that they might learn about and develop skills applicable to the career exploration process.

b. To assist these teams in working together to create a plan for their own schools.

c. To supervise plan implementation which might result in model implications for career exploration programs throughout the State.

PLANNING

The advisory committee which had been formed early in 1970 was supplemented by representatives from mathematics, curriculum, and instruction. Still other representatives from the fields of guidance, home economics, vocational education and industrial arts were also included. Contracts were re-drawn between, Maryland State Department of Education, and the University of Maryland, under the funding aegis of the Statewide Career Development Project. In March of 1971, letters over State Superintendent James A. Sensenbaugh's signature were sent to all county superintendents inviting team applications. Response came from ten schools representing eight districts. Nine teams from seven districts were able to participate. Certain of these

*1970's team membership consisted of the home economics and industrial arts teachers and the school counselor.

teams were reduced through circumstances to four members, and in one case, to a membership of three.

Responsibility for workshop housing, content, and instruction was jointly assumed through the advisory and physical resources of the Maryland State Department of Education's Division of Vocational-Technical Education, headed by Mr. James L. Reid, the Assistant State Superintendent, and the Department of Industrial Education, University of Maryland, headed by Dr. Donald Maley. The campus facilities of the College of Home Economics and the Center of Adult Education were also engaged on an interim basis.

It was determined by the advisory committee that the participants would be introduced through a minimum of six content areas to work-simulation tasks, role-playing, and action-oriented research.

Resident staff members and visiting consultants were obtained from the states of Pennsylvania, Virginia, Kentucky and the District of Columbia, and were assigned both keynoting and consulting roles as the workshop progressed. Because the workshop's stated goal was the pooling of represented disciplines to effect a workable plan for each school, it was decided that an exposure to several group experiences would provide a baseline for team unity and innovation. This would also demonstrate a number of techniques which the team might employ in the school setting. The first two weeks were selected for these group experiences, while the final weeks would be devoted to the planning and writing sessions necessary to the custom-designed product of each team.

Members of the committee stated the following short-and long-term objectives for workshop participants:

Goals for Individuals -- To be pursued overtime in the operational setting of the workshop experience

The Individual will - - - - - 1. Acquire a broader understanding of the world of work through the assumption and/or research of the multiple roles of today's worker

via objective: a) will be able to describe the motor, cognitive, and affective skills needed in at least one occupation under each of the nine broad career areas*.

The individual will 2. Identify the contribution he can make toward the provision of similar experiences for his students

via objective: a) will be able to describe at least three activities which would apply his discipline in a work-simulation experience in the school setting.

The individual will 3. Recognize the value of a team approach to career exploration

via objective: a) will be able to illustrate, through written or spoken example, four specific connections between his discipline and those represented by his teammates.

The individual will 4. Suggest means which involve the total parent/business/educational community in the career exploration process

via objective: a) will be able to list at least two career resource people in his parent community, his business community, his community college, his county staff, and among his state and university personnel.

The individual will 5. Effectively relate school subjects to broad vocational skills

via objectives: a) will be able to name and describe the secondary school options available presently to his specialty oriented students; will be able to name the options which should be available, but are not.

b) Will be able to list at least six traits of employability which can be developed in each curriculum area in the junior high setting.

*agri-business, health, construction, manufacturing, communications, transportation, personal services, social services, real estate/finance/banking

Goals for Teams - To be pursued over time in the operational setting of the home school

THE TEAM WILL-----1. Demonstrate its commitment to career exploration by encouraging total staff involvement in their plan

via objectives:

a) will be able to design a timetable of gradual staff addition based upon the contribution that staff member can make to both a team approach and the specific workshop plan

b) will be able to describe at least three inservice activities for teachers which will give them options for accepting or rejecting team membership

c) will have increased staff involvement by 40% at the end of year one.

THE TEAM WILL-----2. Be knowledgeable about a check and balance system of interests vs aptitudes which can facilitate the self-knowledge of their students

via objectives:

a) will be able to name and administer at least two measures of interest which are appropriate for a majority of their students

b) will be able to name or create at least two sociometric (unstandardized) devices which will elicit measures of self-concept and peer relationship

c) will be able to name and assist in the administration of at least two measures of aptitude which deal with actual task involvement.

THE TEAM WILL-----3. Engage and continually involve members of the parent, business, and educational community in the implementation of their plan

via objectives:

a) will form a parent/business advisory committee which meets on a monthly basis

b) will elicit from working parents a work sample via slide, biography, or personal interview. (Such data may be gathered by students.)

c) will ilicit from nine representative* business firms in the school community their definitions of "employability." (Such data may be gathered by students.)

d) will establish an active relationship with an accessible community college

e) will establish a cooperative three year program of activity which introduces and maintains connections between secondary school program coordinators of vocational-technical offerings.

THE TEAM WILL-----4. Plan learning experiences for their students which have application to a broad range of socio-economic and intellectual backgrounds.

via objectives:

a) will develop at least five interdisciplinary projects which engage a majority of the student body during their implementation

b) will provide for those students not involved by virtue of class, age, or teacher contact, an opportunity to observe, react to, and/or replicate these experiences - with team assistance to their teachers.

THE TEAM WILL-----5. Develop decision-making skills by permitting students to engage in dramatized or real sequences of choosing, trying, taking consequences for action's and also evaluating their performances.

via objectives:

a) will be able to conduct at least three follow up activities which respond to results obtained from interest inventories

b) will be able to construct at least three reality-testing situations which permit students to match their present aptitudes to their declared interests

c) will provide specific times and locations for team consultations with student groups involved in self-evaluation and decision making.

New and modified measures of pre/post evaluation were designed and assembled, and packets of multi-disciplinary materials were prepared for each participant. A university based coordinator was appointed as the staff made specific time and task commitments to the workshop, and the university consultant who served as director in evaluation (of the entire career development project) was assigned a full time associate. This latter individual functioned as an impartial observer during both workshop sessions.

CHAPTER TWO

PROCEDURE:

Participants met with the staff to hear keynote addresses by resident and visiting consultants. Prior to this, two questionnaires were administered to participants to determine:

1. opinions on career exploration and ranking of professional concerns
2. self and team expectancies for the impending workshop experience.

The following two weeks were devoted to group experiences in six discipline areas. Consultants in guidance presented vocational choice theory - past and present, and directly involved participants in a number of group process games which exercised judgment, empathy, barter and humor. Industrial arts employed a unit approach in which participants researched the question: Who does it take to create or maintain an effective community? Interviewing College Park workers in each of the nine broad career areas*, participants reported their findings to the total group.

Home economics utilized a role-playing situation in which individuals could choose a family membership, individual entrepreneur, or a group employee part. Custom-designed ties were produced and sold to boutiques by both "factories" and individuals. Boutique operators became decision makers according to consumer demand, zoning limitations, and working capital. Vocational education moved into the junior high school setting in the discussion of human resource, exchange and tutoring experiences, and task-simulation stations. New techniques of making offerings both relevant and known to junior high school staff and students were designed.

The representatives of the mathematics area demonstrated application of mathematics to all career areas through a sequence of gaming activities in which participants purchased homes, paved driveways, constructed furniture, created scenery, bought stock, etc.

*agri-business, health, construction, manufacturing, communications, transportation, personal services, social services, real estate/financial/banking

The area of curriculum and instruction was treated broadly, so that the diverse backgrounds of the fifth member of each team could be utilized fully. Three presenters dealt with career exploration's natural evolution in areas of government, the arts, and the sciences, while one presentation specified the broad range of careers available in graphic, linear, and media-based art.

Concurrently with the above experiences, participants were able to examine a broad array of human and material resources. Material resources were presented as a composite of school and commercially built products, and human resources were presented by giving specific illustrations of the potential existing in business leaders, community college staffs, radio and television, civic agencies, "retired" communities, etc. Presentations concerning the evaluation of interest, achievement, and aptitude were made. These emphasized that the use of multiple measurement combined with task interest and task success, was superior to any single commercially or locally constructed device. Provisions were made for participant reaction to, and/or rejection of, any or all of the above stimuli through an oral or written response, assigned or involuntary.

Final week activities concentrated upon extended periods of team planning and writing. (Consultant analysis of behavioral objectives and the planning process had preceded this.) Principals and/or administrative representatives from participant schools were directly involved and were reinforced by the supportive address of Dr. Frederick Brown, Associate State Superintendent of Schools.

On the last day team spokesmen submitted both an oral and written abstract of their plans, to the group at large. In addition, spokesmen of each discipline reported a consensus of the professional and personal gains realized from the association with members of other discipline areas.

Three evaluative instruments were then administered to all participants. One was a post test of the questionnaire on attitudes and priority concerns. The second measure retested participants' estimate of self and team expectancies, and the third

provided specific attainments of stated workshop objectives in the cognitive, affective, and motor domains. To this third measure were added opportunities for the participant to name human resources at the parent, community, county and State levels, and to organize workshop content in his, and hypothetical student's, ranking of "least to greatest learning."

Staff members then arranged the first scheduled visit to each of the teams' home schools. This initial contact would serve to establish the first link between operation and evaluation of the teams' plans, with the staff members serving as advisors as well as advocates in a continuing relationship.

CHAPTER THREE

Findings:

Of the three instruments devised to evaluate immediate workshop effect, two were designed to serve a prepost function*. The first of these questionnaires which were directed toward attitudes about career exploration, permitted the participant to respond to 25 weighted statements to rank his professional concerns, and to select his definition of career development from a list of options provided. (The participant was given the latitude to write additional or substituted concerns and definitions.) Through the later testing of this instrument it was hoped that the participants would reflect any changes which might have occurred in their preworkshop attitudes toward a concept which was still unfamiliar to most of them, as well as any changes occurring in ranking of professional concerns. Since teaching the concept was an implicit workshop goal, post-test results should measure the effectiveness of that teaching.

Limitation of such an instrument need not be expounded. Key weighting was ascribed, a priori, by the questionnaire builder and no statistical analysis was employed. Tallying the modal response was considered the most appropriate analysis, and generalizations to populations of counselors and educators were not implied.

"Attitudes on Career Exploration: Professional Priorities"

Table I

Code: + = on key (one weighted alternative)
- = away from key (either of two remaining alternatives) nm = no mode

	Pretest Response Modes		Post-test Response Modes	
Discipline Area	Attitudes	... Priority Rank	Attitudes	... Priority Rank
Guidance n = 9 items: 25 total responses:	+ = 164 - = 61 225	P_1=h P_8=nm P_2=c P_9=b P_3=nm P_{10}=i P_4=a P_{11}=j P_5=nm P_6=) e P_7=)	+ = 185 - = 35 220	P_1=c P_7=nm P_2=nm P_8=nm P_3=e P_9=nm P_4=f P_{10}=i P_5=nm P_{11}=j P_6=nm
Mathematics n = 6 items: 25 total responses:	+ = 91 - = 59 150	P_1=) h P_7=nm P_2=) P_8=a P_3=c P_9=nm P_4=nm P_{10}=nm P_5=g P_{11}=j P_6=i	+ = 113 - = 37 150	P_1=nm P_7=nm P_2=k P_8=nm P_3=nm P_9=nm P_4=e P_{10}=nm P_5=nm P_{11}=j P_6=a
Home Economics n = 5 items: 25 total responses:	+ = 82 - = 43 125	P_1=nm P_7=d P_2=f P_8=nm P_3=nm P_9=a P_4=nm P_{10}=) j&k P_5=g P_{11}=) P_6=nm	+ = 100 - = 23 123	P_1=c P_7=i P_2=e P_8=nm P_3=nm P_9=nm P_4=nm P_{10}=nm P_5=l P_{11}=j P_6=d
Industrial Arts n = 9 items: 25 total responses:	+ = 154 - = 71 225	P_1=h P_7=nm P_2=c P_8=d P_3=nm P_9=i P_4=a&e P_{10}=k P_5=b P_{11}=j P_6=nm	+ = 167 - = 57 224	P_1=nm P_7=nm P_2=e P_8=nm P_3=f P_9=nm P_4=d P_{10}=b&i P_5=nm P_{11}=a&i P_6=b
"Other" Curriculum Areas n = 9 items: 25 total responses: Art n:2 Civics n:2 Science n:2 English n:1 Soc. St. n:1 Personal Development 1 (health & mental hygiene)	+ = 154 - = 70 224	P_1 =nm P_2 =h P_3 =f&g P_4 =c P_5 =nm P_6 =k P_7 =c P_8 =nm P_9 =nm P_{10}=nm P_{11}=a	+ = 172 - = 50 222	P_1=c P_7=b&d P_2=f P_8=j P_3=h P_9=nm P_4=nm P_{10}=a P_5=k P_{11}=i P_6=nm
Total n = 38	+ 645 - 314		737 202	

PROFESSIONAL CONCERNS

a. development of a salable skill

b. achievement of technological currency

c. vocational awareness for all students: K-12

d. creating more valid measures of skill attainment

e. teaming my proficiencies with those of other disciplines in an effort to validate education

f. developing my own awareness of career alternatives students might explore

g. matching of known aptitudes to new or existing careers

h. meeting individual needs as they become apparent.

i. raising professional standards in my field

j. achievement of equal status with other disciplines

k. elimination of artificial barriers between content areas

_____

(yours -- if not described)

_____

_____

DISCUSSION

I Attitudes:

In the pretest, proportion of on-weight responses (.72%) was highest for counselors and lowest for math teachers (.60%), industrial arts teachers and teachers of "other" discipline areas made ten less selections of on-weight responses than did counselors, with a key selection behavior of 68% on-weight choices. Sixty five percent of the choices made by home economics teachers were of the on-weight items.

Post-test responses showed increase in choices of weighted items for all groups. Counselors made twenty one additional on-weight choices, bringing key selection behaviors to 84%. Math teachers increased selection of weighted items by 15% to 75%, through an additional 22 choices. Home economics teachers demonstrated an on-key selection of 89%; an increase of 24% between pre and post-tests.

Similarities between choice behavior of the industrial arts teachers and those teachers of "other" disciplines were not as apparent in post-test responses. Of the five groups represented, industrial arts teachers showed least change in post-test selection, i.e. 14 additional weighted choices brought selection behavior from 68% to 74%. Teachers from "other" disciplines, however, made weighted choices which brought selection behavior from 68% to 81%.

In summary, the dramatic increase in choice of keyed items by home economics teachers in post-test responses showed this group to be most similar in perception to test builder and/or more receptive to attitude change. The counselor group maintained high key selection behavior, but showed less "change" in post response than did mathematics teachers and teachers of "other" content areas. Post-test totals demonstrated a rearrangement of disciplines in their percentage of weighted choices.

pretest	post-test
Guidance - 72%	Home Economics - 89%
Industrial Arts - 68%	Guidance - 84%
"Other" - 68%	"Other" - 81%
Home Economics - 65%	Math -
Math - 60%	Industrial Arts - 74%

Commentary on item analysis would best be served by pointing out that in both pre-and post-tests all participants tended to display an off-weight mode in items 1, 15, 19, and 24 (see appendices). Examination of these items should reveal that the test builder's arbitrary weight of "not sure" on controversial issues (2), coupled with arbitrary choices in perception of career development's range (2), would conspire to confuse the test-taker.

II Professional Priorities

Study of Table I reveals that all groups re-ordered their professional concerns between pre and post-tests. Only in the lowest priority (eleventh) was modal response the same; a selection of "achievement of equal status with other disciplines."

Maintenance behavior between tests was marked only by modal absence. For example, home economics teachers gave no third, fourth, or eighth priority on either test. From a pretest first priority of "meeting individual needs...," participants substituted "vocational awareness for all students; K-12" as first concern. Post-test selection of "teaming.." as a second priority concern supplanted a pretest group mode (dual) of "vocational awareness..," and "meeting individual needs..." No third priority was noted for the group at large on either test. Variance within disciplines was more pronounced than that between disciplines. This was most evident in teachers of industrial arts, while maintenance behavior (even of a "no mode" response) was somewhat visible in the responses of counselors, home economics teachers, and teachers of "other" content areas.

CHAPTER FOUR

Post-test measuring attainment of workshop objectives

I Cogritive Recall and Application of Workshop Experience

The first six items in this measure were devoted to questions designed to observe participant ability in applying cognitive and perceptual gains. The following areas were treated:

1. Assessing affective, cognitive, and motor skills necessary to a representative occupation in each of the nine career areas.
2. Describing three work-simulation tasks which could be developed in own discipline area.
3. Stating teaming activities between participant and each of four colleagues.
4. Naming human resources at parent, business, county, State, and university level.
5. Naming vocational course offerings available to own students; removing and/or adding options according to his definition of student need.
6. Defining "employability" as it is related to ten* content areas.

Scoring of these items was through an arbitrarily assigned plus, zero, and minus, scale. In translation, "plus" became two points, "zero" earned one point, and "minus" received no score. Points for each discipline area are reported below.

(n=9) Guidance 72 of a possible 108 (66%) .07% minus factor
(n=9) Industrial Arts 71 of a possible 108 (65%) .06% minus factor
(n=5) Home Economics 51 of a possible 60 (85%) no minus factor
(n=6) Mathematics 62 of a possible 72 (86%) .02% minus factor
(n=9) "Other" 78 of a possible 108 (72%) 10% minus factor

Inferences made from these scores should include a heavily loaded "expressive" factor peculiar to each participant. The ability of each individual to respond with specific examples and/or activities could be at least partially related to prework-shop response patterns. Inaccuracy or omission

*Math, Science, Art/Music, Language Arts, History/Civics, Home Economics, Industrial Arts, Guidance, Special Education and Physical Education

scores, i.e. those with "minus" or no point value, occurred with low frequency in all groups, with home economics teachers demonstrating virtually no "inaccurate" or omitted responses, and teachers of the fifth subject area (school choice) showing highest "minus" responses.

II Ranking of Workshop Experiences for Self and Student

The following table illustrates participant view of fifteen workshop experiences in terms of their value to him, and to a hypothetical student with whom he would work.

TABLE II

Ranking Workshop Experiences for Self and Student

*substitute term for student = "interest" 0 = no mode

Experiences	Guidance Mode Self/Student		Industrial Arts Mode Self/Student		Home Economics Mode Self/Student		Mathematics Mode Self/Student		"Other" Mode Self/Student	
a. interviewing worker on the job	4/7	4	10	6	5	3	0	2	1/13	5
b. reacting to film geared to feeling	11	12	11	7	0	11	15	10	14	8
c. role-playing member of a line	10	2	15	0	0	0	14	3/4	10/12	1/2
d. listening to spokesmen of own discipline* area	0	0	9	13	0	10	0	8/15	10	0
e. forming a company and researching role assigned	0	6	8	4	11	0	3/5	4/7	7	3/5
f. creating a product	1	1	14	4	15	1	2	5	0	0
g. examining and considering wide range of human & material resource	7	0	0	9	7	0	0	0	7/9	3/4
h. reacting to film geared to information	11	4/11	8	11	0	0	11	8	15	6/14
i. contributing to a team consensus (oral-written)	6	2/11	9	12	2	14	8	0	0	9
j. contributing independently of a team (oral-written)	6/8	3	12	2	0	15	0	13/14	5	10
k. evaluating one's attitude toward work	1	1	14	1	0	1	0	0	1	0
l. listening to spokesmen of "other" discipline* areas	8	3/12	5	10	6	6/9	6	12	4	7/11
m. connecting my discipline to certain careers	9/11	13	0	10	4	13	1	0	3	0
n. discovering the gaps in one's knowledge of career opportunities	2	0	0	8	0	8	2	7	1	0
o. building own theory of career development	3	15	1	3	1	9	15	0	5	9/15

DISCUSSION:

Workshop evaluation by participants revealed a wide variance within the five discipline areas. Such variance served to elicit a number of bimodal or no-mode responses to the fifteen experiences evaluated. Teachers in the fifth content area, (termed "other" in this report,) showed greatest within-group nonconformity, as would be expected. Industrial arts teachers showed least disparity within their group, accomplishing modal responses to all but four of a possible 30 rankings for self and student.

Counselors considered that creating a product and evaluating their attitudes toward work were most valuable for themselves, and for their students. Counselors ranked "reacting to film stimuli and connecting their discipline with certain careers," as lowest value. For their students, this group saw "building own theory of career development" as having lowest application.

Home economics teachers chose "building own theory of career development" as experience of greatest learning, yet agreed with counselors that creating a product and evaluating attitudes toward work would be the most valuable gains their students could make. Least learning for these teachers was "contributing independently of a team."

Mathematics teachers elected the connection of their discipline area to certain careers as greatest learning, and for their students a rank of two was given to "interviewing workers on the job." Least learning for this group was building their own theory of career development and, for their students, "listening to spokesmen of their interest area." (note* key)

Industrial arts teachers felt that building their own theory of career development was the experience of greatest significance to them, while their students would gain most from evaluating their attitudes toward work. These individuals chose "role-playing member of a line" as least valuable to them, and that listening to spokesmen of their interest areas would appeal least to their students.

CHAPTER FIVE

SUPPLEMENTARY EVALUATION

The following evaluation was conducted by the director of the third party evaluation team who was not a member of the planning or teaching staff of the workshop. This evaluation was based upon one instrument of the three which were administered.

Evaluation proceeded by (a) defining and redefining expectations and (b) identifying discrepancies between the reactions of participants to the product and process of the workshop.

The methods employed were to (1) analyze the stated objectives built into the individual and team goals (presented on previous pages) (2) extract elements and sub-elements from these objectives, (3) categorize these elements into cognitive and affective expectations and, (4) with the above as a basis, constructing reactive type items. Twenty items required objective, cognitive recall responses. Seventy-six items required responses to be recorded on a continuum scale. One question was of the open-end type eliciting subjective expressions not anticipated by the instrument.

The same instrument was used at the beginning of each workshop and at the end. Each participant was asked to code his test in order to remain anonymous. After completing the post-test each participant retrieved the proper pretest and compared the initial and final reactions. This technique eliminated the subjective inferences of the third party evaluation team.

1. Dr. Walter S. Mietus, Author

The data presented below is exclusive of item nine (9) which was found to be weak and non-discriminating.

TABLE III

Summary Data Derived From Participant Responses Workshop I

GROUP	N	PRE-TOTAL	MEAN	POST-TOTAL	MEAN	MG
Guidance	5	925	185	1140	228	43
Home Economics	3	567	189	720	240	51
Industrial Arts	6	1344	224	1594	265	41
Math	4	872	218	1032	258	40
Other	5	940	188	1150	230	42

GRAND MEAN for Gains 35.4

TABLE IV

Summary Data Derived From Participant Responses Workshop II

GROUP	N	PRE-TOTAL	MEAN	POST-TOTAL	MEAN	MG
Guidance	4	758	187	920	230	43
Home Economics	2	348	174	450	225	51
Industrial Arts	3	603	201	750	250	49
Math	4	816	204	992	248	44
Other	5	805	161	1145	229	68

GRAND MEAN for Gains 51

Findings and Discussion

An attempt was made to make a comparison of all groups on an item-to-item basis. The data was completed. However, it is not presented here in that no patterns of differences were observed in this manner. Only after compiling the total test scores and means was there a difference observed which was considered good data for reasonable conclusions. From the data it was evident that both groups reported gains in the positive direction. The first workshop group tended to start in the workshop at a higher level than the second. However, the second group made larger gains. The group categorized as "other" started at the lowest levels and made larger gains. These broad data were taken as evidence to support the conclusion that there were changes of behaviors on the part of the participants in the direction of the desired goals measured by the instrument.

No claims are made herein as to the objectives measured by other instruments administered concurrently. Team objectives were stated as field evaluated, and thus precluded measurement at the workshop site.

Limitations

The instrument developed and the data collected were of low inference level due to these factors:

1. No formal content was provided to the evaluator in advance of the program. However, a list of objectives and a schedule of events was developed.

2. Subjective responses on a continuum scale are relative. Participants would express an opinion that a particular goal was achieved, whereas more people with insight would tend to respond with less conviction.

Responses to Open End Questions

The feelings and subjective reactions of workshop participants constitute a valuable estimate of the personal meaning of the workshop experience. Some researchers have utilized this approach to evaluation along with other techniques. It is not uncommon to find the opinions of colleagues of a discipline area differing with the insights of the individuals themselves in areas of attitudinal and behavioral change.

Some reservations about the authenticity of such change are probably warranted. It would not seem unreasonable to suggest that a follow up of the participants be conducted in terms of self appraisal and peer ratings of attitudinal and behavioral change claimed. Although no individual comparisons could be made (since responses were kept anonymous,) a simple count of negative and positive ratings might suggest whether participants self-ratings were lasting and real.

On the measurement analyzed in Table III participants were asked to make any comment they liked regarding the workshop experiences. (See appendix for questionnaire.) Some of the responses were refreshingly blunt, others somewhat vague, but a great number were clear and specific. They are offered below, in two groups titled "Affirmative" and "Negative." The "Negative" testing includes suggestions for areas omitted from the workshop. Duplications have been avoided.

Some negative evaluation is related to interpersonal or intra-team conflicts that are possibly, but not necessarily, unrelated to the workshop. These have all been included.

They are all offered verbatim and without comment.

Affirmative

"...I understand the job areas better and have gained a great deal of help through all of the experiences I went through in the workshop: resources, role playing, etc."

"...I have a better understanding of jobs in each career."

"...feel improvement through our interaction here - have learned cooperation and see the team approach as beneficial."

"...gained understanding and confidence through activities and exposure to new ideas."

"...have been made aware of tests available for use and those being used here at workshop."

"...increase in understanding through exposure."

"...I now have more avenues of exploration for faculty involvement and awareness."

"...Have gained some knowledge in job areas."

"...More insights into the skills needed for a number of fields."

"...I feel more confident because of the information I have gained from the workshop."

"...Saw the area of greatest importance the ability to relate knowledge of occupational world to students."

"...This workshop has enabled me to meet numerous resource people."

"...have learned more of the interrelatedness and importance of all jobs."

"...Interviews gave me self confidence to approach people."

"...Worksheet we used when we interviewed expanded my thinking."

"...An awareness of the world of work, coupled with constant reinforcement of that awareness, has to stimulate ideas and a feeling of security."

"...As a result of our cohesiveness in philosophy, my confidence has improved."

"...Total involvement - it's importance came as a result of the workshop."

"...Thinking in terms of specific resource people is a gain I made from the workshop."

"...I added OVIS* survey to the list (of standardized instruments) as a result of workshop."

"...It would be hard to leave the workshop without seeing the need for the community as a resource."

*Ohio Vocational Interest Survey

"...Because of an exposure to a variety of techniques and a cohesive team behind me, confidence has been built."

"...The total workshop experience was invaluable to/for me - and I can only trust that follow-up evaluation in our school might prove the difference between my individual performance here (felt to be weak due to family pressure and divided responsibilities) and what I actually took back with me."

"...Confidence has developed with my own experience here but I'm aware that successes on the job will cement my own evaluation of self."

"...A better understanding of available resources."

"...I think the workshop theme was a great idea and am optimistic about its inception despite my (earlier) reservations."

"...Much more confident hearing speakers in my discipline."

"...More confident after working with people in other disciplines these three weeks."

"...More aware of jobs available now in each area."

"...More confident especially with business and vocational educational personnel."

"...More confident because of activities of workshop."

"...Became more aware of personal differences through others' reports, group unit approach, etc."

"...Resources gave me a chance to get the 'meat' of the career."

"...Games gave me insight to interaction of group."

"...Interviews help me very much to understand job attitudes."

"...Have a complete new insight about careers--opened my eyes to many aspects."

"...Now I have also tools to work on the problem, background information, etc."

"...Previous to this time, I was not totally familiar with the careers involved in each area."

"...There has been a definite change in the number of jobs and skills I am able to name."

"...I feel more confident as a result of the various activities explored in the workshop."

"...Knowledge has increased as a result of brochures and guest lectures."

"...After the workshop I have a vivid picture of what career development is all about."

"...The workshop has fulfilled its purpose and my expectations. I feel I have something to carry back to my school and community."

"...Awareness of need for faculty involvement."

"...Have been exposed to techniques for structuring work experiences for my students and correlating with other disciplines."

"...Gained confidence in my teaching and implementing ability."

Negative

"...I feel less confident now than before the workshop. I now know that more is involved than was previously considered."

"...I didn't feel the person in our county responsible for notifying us about the workshop conveyed well enough what the workshop was all about -- to generate interest at beginning would have helped."

"...Another major subject area person would have been good. Possibly have guidance counselor as a visiting resource person for at least two days, as principals and supervisors did."

"...Maybe a meeting of groups by disciplines about half-way through."

"...More 'hands on' activity for participants during first week - lectures in morning, doing in the afternoons."

"...Have teachers who have been through a school program in career development here for us to talk to. Their presentations were too rushed."

"...Doubts were raised because of poor team interpersonal relationships existing before workshop."

"...I entered the course with some biases i.e., our course supervisor at the county level informed us that she herself did not know the reason for the workshop. This, followed by the principal's need to use coercion to build the team perplexed me somewhat. We need more public relations promotion of this workshop."

"...Unfortunately, after the team was operating in the workshop there arose some definite biases or next to impossible within team relationships. We grew apart and became almost a two group team. (I'm sure you were aware of this and will recognize in evaluation of us.) I regret this happening very much but there are human values to be considered."

"...Too much sitting and not enough hands-on experience."

"...I have got more sore places from just sitting than before. One time is enough exposure for industrial arts. 'Practice what you preach,! Meet the individual needs of the participants.' Expose the people to other than local advocates of certain disciplines if you are going to practice what you teach....Get some people who are down to earth speakers."

"...Selection of workshop participants should be made after considerably more determination as to need, desire to participate, and willingness to make a commitment. Participants should include principals and supervisors. This I feel is a must."

"...If possible bring in some junior high teachers who are working in career development. Make workshop more activity-oriented."

"...Not as confident (to provide experiences for students that approximate real job experiences) due to broad range of careers I was exposed to."

"...I felt course wasted time and money with repetitious speakers.... I felt course could have been condensed to two weeks. We operated as a two group team with two members pulling very much away from the other three."

. . .

The evaluation team concluded that the workshop activities were conducted more effectively in 1971 than in the previous year. While all the discrepancies between performance and stated goals were not fully resolved, there was much evidence that the formative process is real. The participants were, on the whole, viewed as individuals with the potential of becoming catalysts for program changes in the schools they will return to in September.

CHAPTER SIX

CONCLUSIONS

On September 29, 1971, The Advisory Committee met to review the activities of the workshop and to engage in a formative type of evaluation. Members involved in both the design and presentation of certain content reported their perceptions of how such content was received by the participants. Members involved in resident consultant roles discussed apparent strengths and weaknesses of total workshop design.

After examination of the descriptive and quantitative data which was compiled through a combination of pensil and paper responses of the participants, and also after examination of their observed behaviors in six role-playing situations, the committee found that the proportion of gains reported or witnessed was approximately equal between participant and advisory groups.

It is of major importance to ascribe low validity to any and all inferences based on subjective self-reports of the participants. Cognitive gains (naming, describing, applying, listing, etc.) can be given more credence in this report when they are compared with pre-workshop measures of cognition. Because the effect of the workshop experience is to be assessed over time in the school situation by certain committee members, and at least one member of the evaluation team, staff and student gains will be noted in the second annual report of the Maryland Career Development Project.

At the time of this writing, the following field activities had been observed.

1. One team organized and conducted a one week workshop in mid August for junior high school educators and counselors in their county. This venture telescoped and replicated certain workshop experiences considered appropriate for that population. Three members of the workshop staff served as consultants.

2. Nine teams held work sessions with members of this committee in their home schools. Administrative support was demonstrated through the flexible scheduling of subject matter or grade level teachers which permitted their participation in a central location; e.g. library, multi-purpose room, etc.

3. One team was selected on a random basis to appear with a 1970 workshop team at the 1971 Career Development Conference. These teams presented an overview of their activities to a large group of county superintendents, supervisors, and Task Force representatives.

Committee members made the following recommendations concerning their responsibilities to each team:

1. Selection of certain teams they would visit regularly, by virtue of proximity or county affiliation.

2. Response to specified requests for member's input on school's meeting agenda on day of visit.

3. Reporting to chairman and evaluation team subsequent to each visit.

4. Flexibility in attendance at interim visits (beyond the three work sessions established as minimum contact with each team.)

5. Building liaisons between 1970 and 1971 teams.

The summer of 1972 was seen by the committee as an opportunity to explore specific variations suggested by themselves and participants. These are described as follows:

1. Change in setting to "neutral" territory (one not affiliated with any subject matter.)

2. Participant population: should this be changed to engage supervisors and principals?

3. Growth of team: new subject area representation.

4. Required campus residency for all participants?

5. Content: proportion of activity increased, proportion of lecture decreased, etc.

6. Firming of criteria and screening process prior to final selection of participants.

The third party evaluation team, now made up of a director and two associates, will concentrate on two tasks in the months ahead. The first will be the compilation of test items which are both common to all program objectives and unique to student populations involved. The second will be the establishment of realistic avenues for both students and staff of the fifteen schools now active, to communicate with each other. These avenues would present alternatives of team exchange, student visit, and regional consortium, by sharing of human and material resources.