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ABSTRACT

The presentation outlines a cooperative doctoral dissertation project which attempted to uncover some information about the attitudes toward career education of California high school and junior high school teachers. There is a brief description of the opinionnaire which was mailed to 900 high school and 900 junior high school teachers selected by a sampling method which considered both the teachers' specialty and locale (urban or semi-urban). The teachers' response rate was 82.6 percent for high school and 78.7 percent for junior high. The results indicated that: teachers viewed career education as having two basic components (teacher/classroom and school/community); high school vocational education and industrial arts teachers and junior high school vocational teachers held the most positive opinions; both teachers who had participated in career education seminars and workshops and teachers with some years of nonteaching work experience held more positive opinions than did others; all teacher specialist groups believed that their school should be (but was not, and generally could not be) utilizing community resources. The appended tables provide some sample opinionnaire statements, information on subject matter specialty grouping, a list of independent variables analyzed, a summary of specific findings, and a t-test analysis of response to index statements. (PR)

CAREER EDUCATION OPINIONS

OF

CALIFORNIA SECONDARY SCHOOL TEACHERS

BY

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CAREER EDUCATION OPINIONS OF CALIFORNIA SECONDARY SCHOOL TEACHERS

Good morning, ladies and gentlemen: I am happy to have the opportunity to share with you the results of an interesting joint effort in doctoral research. I will first describe the background of and rationale for these joint studies and briefly outline the research and analytical procedures utilized. I will next present the joint findings and the recommendations derived from them. I will conclude my presentation with a description of the ways in which we have applied our research through our current professional positions.

Background and Rationale

Increasing numbers of educators are now familiar with the term "career education." Sidney Marland[1] struck a responsive note when he introduced that term and its accompanying philosophy in January 1971, and the concept has grown tremendously in the four years since. Career Education has gained the support of many communities, teachers, counselors, and school administrators. Financial support has been made available from several state and federal sources. As a result of this initial wave of interest, career education can now be said to have a foothold in our educational system.

When we initiated this project almost three years ago, my two colleagues and I were concerned with the apparent fact that those persons developing plans for career education were doing so with little information about the attitudes and opinions of those who would be primarily responsible for implementing such plans--the classroom teachers. Hence, our dissertation research projects were devised to try to obtain some realistic information on those crucial opinions and attitudes.

With the help of our committee chairman, Dr. Melvin Barlow, we developed a joint proposal which integrated the research for three different teaching levels: elementary, junior high, and high school. With Dr. Barlow's help, we were also able to obtain the grants which enabled us to develop this rather ambitious dissertation project.

Results concerning the elementary study are available to those interested.[2] But because the elementary teacher study involved separate sampling and analytical procedures and, therefore, a distinctly different report, this presentation will concentrate on findings at the secondary level. Specifically, my study was on high school teachers. Junior high school teachers were studied by Dr. Frank Santoro.

Procedures

We based our operational definition of career education on five components developed by Hoyt, et al.[3] From this base we developed a series of related statements, drawing from the work of nationally known educators such as Bottoms,[4] Goldhammer,[5] Herr,[6] Reinhart,[7] and Swanson.[8] Figure 1 lists Hoyt's five components and then gives examples of a statement related to each component. The "opinionnaire" we prepared was made up of 75 such statements; 25 in each of three response sections: "should," "can," and "does." A modified Likert response scale format was utilized--"never," "seldom," "frequently," or "always." One section of the opinionnaire also asked some questions about the respondent's professional experience.

After extensive review by a panel of judges and three field tests in California schools, the opinionnaire was ready to be used in the survey of a selected sample of teachers.

We developed separate stratified ~~1%~~ 5% to ~~2%~~ 2.5% random samplings of the 18,820 junior high and the 40,860 senior high school teachers in California. The sampling process took into account the teacher's subject matter specialty (i.e., either academic, general, or vocational) and the kind of teaching

locality--urban or semi-urban. (California counties which were 90% urbanized, or more, by 1970 U.S. Census Bureau standards, were called urban; the others were called semi-urban.) We then sent the opinionnaire to the 900 junior high teachers and 900 high school teachers selected by this sampling.

Following a model established by another California researcher, Addington[9] we adopted a structured mailout and follow-up procedure to try to assure a high response. We also "rectified" the sample by means of a procedure developed by Glock and Stark.[10] Rectification is a process of eliminating errors from that portion of the sample that typically is categorized as non-respondents; e.g., by telephoning the school to determine the current status of each non-respondent. With certain sampling errors thus filtered out, the response rate proved to be 82.6% for high school teachers and 78.7% for junior high. These levels were deemed high enough to justify considering the samples representative, and to support the step of generalizing the results to all junior high and high school teachers in California.

Preliminary Findings

Our analysis involved a preliminary factor analysis or indexing of our opinionnaires, which led us to recognize the fact that the opinionnaire actually measured only two distinct aspects of teacher opinions rather than the five aspects in the listing of Hoyt's five basic components. Those two distinct aspects are identified as Index I and Index II in Figure 2, which also gives some examples in each category.

Index I, teacher/classroom statements or practices, included these components: (1) implication of career in all subject matter, (2) providing students with skills necessary to function in careers, and (3) career guidance and counseling. Note that each of these components is related primarily to what teachers themselves can do within a course or a classroom, and requires no special utilization of outside resources. Index II, school/community statements or practices,

included the last two of Hoyt's components: (4) parent and community involvement in education, and (5) involvement of industry, business and the professions. These components are definitely related more to the use of outside resources as a part of the formal educational process.

Having noted this finding, we used these two indexes throughout the remainder of the analysis.

Another important preliminary finding pertained to response differences between teachers in different traditional subject matter groupings. We had assumed, in planning the study, that such differences would be found, and we checked that assumption using a preliminary analysis of the data. Figure 3 shows, first, the composition of the traditional groupings under three headings: Vocational, General, and Academic. Figure 3 then goes on to indicate the mean responses of subject matter specialists, showing the career education response groupings.

As these findings show, high school industrial arts teachers surveyed held more favorable opinions of career education than some vocational specialists did. For this reason, high school teachers were regrouped into two categories: Vocational/Industrial Arts, and Academic/General. All additional comparisons were made between these two groups.

At the junior high level, mean differences between the traditional groupings were not so pronounced, but the rankings did justify regrouping teachers in this way: Vocational and Academic/General, with the Academic/General category including industrial arts teachers.

Subsequent Findings

Taking into account the preliminary findings above, we proceeded with a quantitative analysis, comparing the response means of various groupings of teachers for significant differences. The groupings were based on the professional experience data gathered as part of the opinionnaire; the t test was

used to determine the statistical significance of the differences.[11] Figure 4 lists the eight independent variables examined and compared, and then summarizes the results of those comparisons. Table 1 gives the t test analysis of response to index statements by teacher groupings as an example.

In summary, we found that (a) teachers viewed career education as having two basic components (teacher/classroom, and school/community) rather than the five initially introduced; (b) high school vocational education and industrial arts teachers and junior high school vocational teachers held the most positive opinions on career education; (c) teachers who had participated in career education seminars and workshops held more positive opinions of career education than those who lacked such experience; (d) teachers with quite a few years of nonteaching work experience held more positive opinions of career education than those with little such experience; and (e) all teacher specialist groups believed that their school should be utilizing community resources, but that schools were not utilizing, and generally were not able to utilize, community resources.

Recommendations

We were required by university regulations to write separate dissertations. As a result of somewhat independent analysis and of subsequent independent final writing, the analysis and recommendations of the senior high school teacher study differed slightly from that of the junior high study.

The recommendations given below are a composite of our separate recommendations based on the mutual findings regarding junior and senior high school teachers

1. Educational leaders ought to provide preservice and inservice training workshops for teachers on how to enlist community participation in the educational process.
2. Vocational and industrial arts teachers should be asked to serve as staff resource people, helping other teachers recognize and emphasize the career implications of their courses.

3. Teachers who already know about career education (by means of either nonteaching work experience or workshops) and are engaged in that effort should be identified and asked to help in preservice and inservice programs, workshops and seminars for other teachers.
4. All teacher training institutions should include in their curriculum extensive information about career education, plus thorough instruction in the techniques of providing career education in the classroom and using community resources effectively.
5. All teacher training institutions should initiate nonteaching work internships for prospective teachers to prepare them for more informed use of community (nonschool) resources as part of education.
6. Teachers should be given the chance to engage in nonteaching work experiences to help them in developing a background from which career materials and emphasis can be processed for use in their course content.

A much fuller discussion of our procedures, findings, and recommendations is, of course, contained in our complete dissertations.[12,13] The dissertation regarding high school teachers is now available on microfiche through the ERIC publication, Abstracts of Instructional and Research Materials in Vocational and Technical Education (AIM, ARM).

Conclusion

The dissertations based on the work described here were approved and filed about 18 months ago. How have we implemented our own recommendations? Dr. Santoro is now a member of the California Career Education Task Force. He has made some very practical contributions to the implementation model being developed by that task force. On the basis of his suggestions and evidence, along with other supporting input, the task force is (1) grouping career education practices and activities to reflect the teacher/classroom-school/community distinction noted

in our findings;[14] (2) developing workshops and workshop materials for practicing California educators; and (3) developing a workbook and filmstrip presentation to help teachers use community resources more effectively.[15]

My implementation has taken the form of several published articles which (1) stress the value of using vocational and industrial arts teachers as resource people; (2) urge assignment of work-experienced teachers to career education projects; and (3) show how schools can help teachers gain nonteaching work experience.[16,17,18] Also, I am currently working cooperatively with a math-science coordinator and a career guidance coordinator in the Office of the Santa Clara County Superintendent of Schools to develop a community resource guide for local educators. Teachers, counselors, and administrators will be offered inservice training in the utilization of the resources described in the guide. They will be given assistance where needed in implementing community-based learning activities.

During the work on our dissertations, we also developed sample lists and parallel opinionnaires for elementary and secondary school counselors and administrators. With the cooperation of the California Career Education Task Force, we mailed these forms (in 1973), and have kept the responses which came back to us. In early 1974 we received an additional small grant from the Vocational Education Section, California State Department of Education, to analyze these responses and compare the results for teachers, counselors, and administrators at the elementary and secondary levels. Our findings will be published in a report which will be available in 1975.

Our opinionnaires were also made available to and utilized by other doctoral candidates; notably by Howe[19] who compared the responses of educators in Mesa, Arizona with responses of educators in Simi Valley, California. This particular comparison is of interest because Mesa was one of six school-based comprehensive career education models to receive early (1972) funding.

We believe strongly in the concept of career education, and are convinced that our research can be a valuable guide for the improvement of career education in the schools. It will be interesting to see what other evidence is accumulated on the subject as studies such as these continue.

FOOTNOTES

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2. Jeffrey Reyes, "Career Education Opinions of California Elementary School Teachers"(unpublished doctoral dissertation, University of California, Los Angeles, August 1973).

3. Kenneth B. Hoyt, et al., Career Education: What It Is and How To Do It (Salt Lake City: Olympus Publishing Co., 1972), pp. 6-10.

4. Gene Bottoms, "Career Development Education Kindergarten Through Post-Secondary and Adult Levels," Atlanta: Georgia State Department of Education, Division of Adult and Vocational Education, 1971.

5. Keith Goldhammer, "A Careers Curriculum," Columbus, Ohio: Ohio State University, the Center for Vocational and Technical Education, December, 1971.

6. Edwin L. Herr, "Unifying an Entire System of Education Around a Career Education Theme, "University Park: Pennsylvania State University, undated, circa 1970-71.

7. Bruce Reinhart, "Career Education and the Comprehensive Career Education Model," Portland, Oregon: Address to EDPA Awardees--AVA Convention, December 5, 1971.

8. Gordon I. Swanson, "Career Education," Columbus, Ohio: Ohio State University, the Center for Research Leadership and Development in Vocational and Technical Education, September 1971.

9. Robert J. Addington, "A Sampling Technique for Administrative Decision-Making in Education" (unpublished doctoral dissertation, University of Southern California, Los Angeles, 1965), pp.30-39.

10. Charles Y. Glock and Rodney Stark, Christian Beliefs and Anti-Semitism (New York: Harper and Row, 1966), pp. 226-228.

11. Norman Nie, et al., "SPSS: Statistical Package for the Social Sciences: Update Manual" (Chicago: National Opinion Research Center, University of Chicago, 1971), pp. A-017-24404.

12. Gregory S. Ohanneson, 'Career Education Opinions of California High School Teachers," California State Department of Education, Sacramento; Research Coordinating Unit, Bureau of Occupational Education, Washington, D.C., 1973, 241 pp. (available - ERIC No. VT100796).

13. Frank M. Santoro, "Career Education Opinions of California Junior High School Teachers," California State Department of Education, Sacramento; Research Coordinating Unit, Bureau of Occupational Education, Washington, D.C., 1973, 214 pp. (ERIC No. VT 100800, but not available).

14. Career Education Task Force, "Career Education - the Instructional Process, California State Department of Education (rough draft), September 1974.

15. Lucinda L. Kindred, "Community Involvement in Career Education," Career Education Task Force, California State Department of Education, (preliminary draft), September 1974.

16. Gregory S. Ohanneson, "Teacher Support is a Must - Career Education, " California School Boards, June 1974, pp. 12-17.

17. Gregory S. Ohanneson, "High School Teacher Opinions of Career Education," Journal of Industrial Teacher Education, Vol. 11, No. 3, Spring, 1974, pp. 15-25.

18. Gregory S. Ohanneson, "Finding, Preparing & Deploying Teachers for Career Education," Social Studies Review, Vol. 12, No. 4, Spring 1974, pp. 19-25.

19. Chester A. Howe, "An Analysis of Attitudes Held by School Personnel Regarding Career Education," (unpublished doctoral dissertation, Lawrence University, Appleton, Wisconsin, July 1973).

CAREER EDUCATION OPINIONS OF CALIFORNIA
SECONDARY SCHOOL TEACHERS

Gregory S. Ohanneson, Ed.D.

FIGURES 1 - 4, Table 1

Figure 1 - Career Education Components and Related Opinionnaire Statements

Components of Career Education

1. Every classroom teacher at every level should emphasize where appropriate, the career implications of the substantive content he seeks to teach.

2. The quality, appropriateness, variety and levels of vocational skill training from which the individual student can choose should be maximized (mainly at junior high and senior high levels).

3. A variety of means should be provided for helping students to understand and reflect upon the values of a work-oriented society.

   Systematic and continuing assistance should be provided for students to help them make better educational and occupational choices.

4. The interrelationships among the home, family, community, and occupational environments must be recognized and capitalized upon by schools.

5. It is the joint responsibility of formal education and the business, labor and industrial community to develop and coordinate joint efforts in curriculum development, vocational skill training and student career development.

Examples of Opinionnaire Statements

1. I should relate my course content to students' preparation for making a living.

2. I should include activities in my course content that help students develop skills for a career.

3. I should provide information about various occupations/professions for my students.

4. I should involve parents as resource persons to enhance my students' education experiences.

5. My students should be provided with opportunities for work experience programs.

Figure 2 - Regrouping the Opinionnaire Statements - Preliminary Finding

INDEX I - Personalized Statements Relating to Individual Teacher/Classroom Behavior

1. I should provide academic, general and vocational elements in my course content.

2. I should utilize field trips and work exploration to help students prepare for various occupations/professions.

3. I should assist my students to narrow their focus gradually from broad to more specific career choices.

INDEX II - Impersonal Statements Relating to School/Community Activities

1. My school should inform parents concerning the importance of both practical and academic training.

2. My school should provide students with an occupational placement service.

Figure 3 - Subject Matter Specialty Groupings - Preliminary Finding

Traditional Specialty Groupings

Vocational	General	Academic
Agriculture	Music	English
Homemaking	Art	Social Science
Industrial Ed.	Physical Education	Foreign Language
Business	Industrial Arts	Science
		Mathematics

Career Education Response Groupings

Vocational/Industrial Arts Teacher		High School Mean-Should*	J. H. School Mean-Should + Rank Order
1.	Agriculture	(3.80)	(3.00-3)
2.	Industrial Arts	(3.29)	(2.98-4)
3.	Business	(3.29)	(2.96-5)
4.	Industrial Ed.	(3.24)	(3.14-2)
5.	Home Economics	(3.19)	(3.20-1)
Academic/General Teachers			
6.	Art	(3.07)	(2.80-9)
7.	Music	(2.96)	(2.67-13)
8.	Social Science	(2.91)	(2.85-8)
9.	Science	(2.91)	(2.76-11)
10.	English	(2.87)	(2.87-7)
11.	Mathematics	(2.86)	(2.78-10)
12.	Foreign Language	(2.83)	(2.90-6)
13.	Physical Education	(2.78)	(2.67-12)

*Note: High School Means are Listed in Rank Order

Figure 4 - List of Independent Variables Analyzed and Summary of Findings

Independent Variables Analyzed

Teachers by Population Density
Teaching Experience
Sex of Teacher
Teachers by Subject-Matter Specialty
Part-time Nonteaching Work Experience
Full-time Nonteaching Work Experience
Information about Career Education
Response Modes: Should, Can, Does

Summary of Specific Composite Findings

1. Population density, years of teaching, and sex of teacher had no significant effect on teacher opinion of career education.

2. Vocational/industrial arts teachers held the strongest, most positive views of career education, particularly with regard to teacher/classroom practices. (See Table 1.)

3. Teachers with many years of nonteaching work experience tended to support career education more than teachers who had no nonteaching work experience.

4. Teachers who were informed about career education were more positive about career education than those who were uninformed.

5. All teachers indicated that it is desirable to use representatives of home, business, industry, and labor in the educative process.

6. All teachers indicated that only seldom did school capabilities exist to utilize the community in meeting students' career needs.

7. All teachers indicated that outside community based resources were not being utilized in the educative process.

TABLE 1

t-Test Analysis of Response to Index Statements by Teacher Groupings

VARIABLES			SHOULD			CAN			DOES		
Career Education Statements	Teaching Specialty	N	$\bar{X}$	$\bar{X}$ Diff.	Sig. Level	$\bar{X}$	$\bar{X}$ Diff.	Sig. Level	$\bar{X}$	$\bar{X}$ Diff.	Sig. Level
I-Teacher/ Classroom Practices	A-Vocational/I.A.	147	3.30[a]	.43	.001	3.35	.56	.001	2.98	.54	.001[b]
	B-Academic/General	464	2.87			2.79			2.44		
II-School/ Community Practices	A-Vocational/I.A.	152	3.32	.08	.061	2.76	-.04	.558	2.33	-.05	.273[c]
	B-Academic/General	472	3.24			2.80			2.38		

[a]Mean responses were quantified on a scale of 1.0-4.0.

[b]All the mean differences in this row are substantial; significant at the .001 level.

[c]All the mean differences in this row are small; not significant at the .05 level.