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ABSTRACT

The requirements of career education hit practicing teachers in Florida long before universities began to indicate an interest in their dilemma. Since career education is a concept that can potentially alter teaching strategies and emphases, the study proposed to assess the present attitude toward career education concepts of a group of public school teachers and of a sample of university students in the process of being trained for public teaching positions. The results indicate a significant difference in the two populations. Undergraduate students were more favorable toward career education than the public school teachers. This difference raises questions about attitudinal changes of teachers and about occupational awareness before entering the teaching field. An investigation of these questions by education departments within universities is needed due to the trend toward continual, life-long education in our present society. Data for this study were obtained through administration of the "Career Education Survey" and were analyzed by multivariate, the survey instrument and a table representing the component analysis are appended to the document. (Author/AJ)

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A COMPARISON OF PUBLIC SCHOOL TEACHERS'
AND UNIVERSITY STUDENTS' ATTITUDES
TOWARD CAREER EDUCATION

SOCIETAL FACTORS

by

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CHAPTER I

INTRODUCTION

During the 1973 legislative session, five million dollars were approved for dispersement among each of the 67 counties in Florida to begin Career Education programs. Utilizing the data gathered from five federally funded Career Education Projects, the legislators assumed the financial responsibility of realigning the priorities of public education! Career Education might be described as the development of the skills and knowledge through which individual students may fulfill their own unique needs with regard to occupational choice, social responsibility, leisure-time activity, and personal development. In other words, public schools must: (1) make occupational information available to all students, (2) stress the accountability of curriculum subjects in light of future occupational roles, (3) sensitize students to the importance of self-knowledge as a major guiding factor in occupational or career choice, and (4) emphasis the importance of all occupations in an interdependent society.

If these major re-orientations are to take place in the public classroom, then the universities training present and future teachers must assume a leadership role in the preparation of teachers required to function

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in this new arena. Unfortunately the requirements of Career Education hit the "field" teachers long before universities began to indicate an interest in their dilemma. Therefore, this study proposed to assess the present attitudes of a group of public school teachers, and a sample of university students in the process of being trained for public teaching positions, toward Career Education concepts.

CHAPTER II

BACKGROUND AND SIGNIFICANCE

Behavior in relation to vocational or career choice became an important research area during the early 1950's. Prior to this time the number of vocational changes within ones working life was minimal and therefore made vocational theorizing somewhat superfluous. As the realities of the world of work became more complex, alterations of individuals' career goals were necessitated.

Flanagan (1964) presents data on almost half a million youth entering, or about to enter, the labor market in 1960. This data was collected through Project TALENT, the most comprehensive empirical study of personal development ever undertaken. Results from this study reported only 36 percent of the high school seniors holding full-time jobs one year after graduation. A five-year follow-up on these students offered a wealth of information on the critical adjustment period from late adolescence to young adulthood (Flanagan 1971). Cooley (1968) emphasizes the implications of this data for formulation of new approaches to career guidance and development. The interests, aptitudes, and achievement of individual students must be integrated with their long range goals in order to provide critical career

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guidance services and career educational curriculum.

Figures presented by the National Center for Educational Statistics on the 1971-72 school year, indicate that little progress has been made in adequately equipping high school students for continuing education and/or immediate job placement. Dr. Jones (1973) places the educational dollar beside the 1971-72 statistics and the figures look like this:

---850,000 students dropped out of elementary or secondary school. Assume that, on the average, they left at the end of the 10th grade. At \$8,000 per child for schooling that began in kindergarten or first grade, these dropouts represented an outlay of \$7 billion.

---750,000 graduated from the high school general curriculum that has traditionally been the dumping ground for students who do not elect vocational training or plan to go to college. At \$12,000 per student, total cost to the Nation ran about \$9 billion.

---850,000 entered college but left without a degree or completion of a occupational program. These young people added

\$12 billion to costs. These figures add up to about 2.5 million young people and an expenditure of some \$28 billion. That is 1/3 of the entire \$85 billion cost of education last year.

And these young people and expenditures reflect the dropout rate of a single year. If you try to include the millions of dropouts and billions of dollars spent in years past, the losses become astronomical.

In 1972 the United States Department of Education launched five Career Education Pilot Projects within the state of Florida. Based upon the initial models impact, the 1973 Florida Legislature appropriated five million (5,000,000) dollars for the planning and/or implementation of Career Education Projects within each county. Many of the sixty-seven counties submitted planning proposals and then began looking to the State Universities for guidance throughout their planning year.

While working as a university co-ordinator and supervisor of student teachers, this author became extremely aware of the enthusiasm student teachers exhibited toward new innovation in the teaching profession. Yet many of these same students would return brow-beaten two years later and discuss the many defeating problems

inherent in the educational process.

Since Career Education is a concept that can potentially alter teaching strategies and emphases, a question of curiosity arose; "Do undergraduate middle and high school education majors and their employed counterparts in public schools' have similar attitudes toward Career Education?" If so, we begin on an equal footing, if not, what attitudinal differences will become evident and what are some possible reasons for these differences?

This study answered the first two questions statistically and offered a basis for projected answers to the third question.

CHAPTER III

PROCEDURES

The instrument known as the Career Education Survey* was administered to random samples (N=100) representing two populations. One population representing middle and senior high school teachers in Jefferson County and a random sample of fifty undergraduate students in the College of Education at Florida Technological University:

The intercorrelation matrix among the item responses to the instrument was computed and subjected to a principal component analysis. Raw components were extracted for rotation according to the eigenvalues of R greater than one and rotated according to the direct oblimin criterion ($\Delta = 0$). It was determined that a relaxation of the orthogonality restriction of components would be more appropriate for the multivariate analysis of variance procedures since that model is predicated upon related criterion measures. Pattern coefficients absolutely greater than .3 were used for interpretation purposes. Upon determination

*Developed by Federally Funded Career Education Project, Pinellas, Florida.

of the salient components the items were summed to form subscales. Those mean scores were analyzed for significant differences between the groups using multivariate analysis of variance. The data was analyzed utilizing MULTIVARIANCE, an exact least squares program according to the methods outlined by Bock (1963). The equality of mean input vectors was tested using Wilk's Lambda Criterion. Univariate and step down F ratios were also computed.

CHAPTER IV

RESULTS

The results of the component analysis represented in Table I indicated that six components warranted interpretation. A summary of these components is presented below.

SUMMARY OF COMPONENTS

FACTOR I

CAREER EDUCATION AND SOCIETAL IMPLICATIONS

ITEM

1. Elementary school is not too early for a student to start thinking about career possibilities.
13. Education and work are interrelated.
16. The skill training offered to a student should be related to interests, aptitudes, values, and abilities.
25. Students should experience various kinds of work before leaving high school.
27. Students should receive credit toward graduation for any supervised job.
29. If schools were career-oriented, they would be useful to more students.
33. Visits from industrial chemists would create more interest in a chemistry class.
35. Career Education will cost money but will be a benefit for society because of an increase in satisfactory employment.
36. The quality of education would be improved by an emphasis on work and occupations.

FACTOR II

OCCUPATIONAL AWARENESS

ITEM

10. Both environment and individual potential influence career development.
11. Job characteristics and individuals must be flexible in a changing society.
12. Most individuals can learn to perform adequately in a variety of occupations.
26. Students need at least one paying job before leaving high school.
28. College bound students should make tentative career choices while in high school.
33. Visits from industrial chemists would create more interest in a chemistry class.

FACTOR III

APPLICATION OF INTELLECTUAL SKILLS

ITEM

3. Elementary schools should teach reading, writing, and arithmetic skills along with an orientation to the world of work.
5. Students need more information about the world of work.
7. You don't need a college degree to be a success.
9. Persons need recognition as having dignity and worth.
15. Schools should provide opportunities to investigate various occupations.
17. The Career Education program will help students make realistic career choices.
32. Elementary students would benefit from people coming to school to talk about their jobs.

FACTOR IV

SELF-AWARENESS

ITEM

2. Career Education should be available to students from kindergarten through adult life.
8. An understanding and acceptance of self is important throughout life.
10. Both environment and individual potential influence career development.
15. Schools should provide opportunities to investigate various occupations.
16. The skill training offered to a student should be related to interests, aptitudes, values and abilities.
22. Courses such as art and music should include information about job possibilities in those fields.

FACTOR V

INDIVIDUAL EDUCATIONAL FLEXIBILITY

ITEM

6. Most people finish high school not knowing what kind of career they prefer.
11. Job characteristics and individuals must be flexible in a changing society.
18. Students should make their own career choices.
23. Students should be permitted to miss regular classes in order to go on a field trip with another class.
29. If schools were career-oriented, they would be useful to more students.
31. Parents are needed in Career Education programs.

FACTOR VI

EDUCATIONAL COMMITMENT TO STUDENTS

ITEM

4. An effective program of Career Education would lower the school dropout rate.
17. The Career Education program will help students make realistic career choices.
29. If schools were career-oriented, they would be useful to more students.
30. Most high school graduates are not prepared to enter the working world.
38. Industry representatives should become involved in Career Education programs.

Those items related to Factor one (Career Education and Societal Implications) address the issue of education's influence on individuals and in turn society. Items #29 and #35 dealt with the utility of Career Education in present society. Factor two is a composite of only six items, but each item address the need to develop occupational awareness within each student so this knowledge can serve as a guide in career development. An interesting array of non-duplicated items appear in Factor three. Each item deals with the global concept of intellectual skills and the application of these skills in the task of survival.

Although Factor four is a composite of six items, three of the items (#10, 15, 16) appeared as contributors

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in one of the first three factors. This only substantiates the fact that individual self-awareness potentially affects many aspects of career development. Individual educational flexibility was the focal point for the six items in Factor five. This emphasis seems to be needed not only within the high school years, but continued in later years in adapting to changing society.

Factor six deals with items related to the public's educational commitment to students. If public education truly aided students in coping with career decisions and gaining insight into the worth and/or application of specific skills, the dropout rate should decrease.

The means and standard deviations on the six subscales for both samples is presented in Table II.

TABLE II

MEANS AND STANDARD DEVIATIONS

VARIABLE	STUDENTS		TEACHERS	
	\bar{X}	σ	\bar{X}	σ
1. Career Education and Societal Implications	31.1	2.9	27.4	5.6
2. Occupational Awareness	10.1	1.8	10.5	2.6
3. Application of Intellectual Skills	23.8	3.0	23.1	3.9
4. Self-Awareness	16.8	1.9	15.9	2.2
5. Individual Education Flexibility	13.5	2.5	12.4	2.4
6. Educational Commitment to Students	6.3	1.3	4.8	1.7

The results of the significance test is indicated in Table III.

TABLE III

Results of the Multivariate Analysis of Variance.				
F-Ratio for Multivariate Test of Equality of Mean Vectors 7.47. D. F. = 6 and 93 $P < .001$				
VARIABLE	F	$P <$	SD	$P <$
1. Career Education and Societal Implications	17.04	.001*	17.04	.001*
2. Occupational Awareness	.08	.3814	5.05	.0269*
3. Application of Intellectual Skills	1.17	.282	.45	.502
4. Self-Awareness	4.53	.036*	1.78	.185
5. Individual Educational Flexibility	5.76	.019*	3.44	.067
6. Educational Commitment to Students	29.94	.001*	12.18	.008*

It may be observed that there was a significant difference between the two groups ($P < .0001$). Inspection of the univariant F revealed significant difference in favor of students on variables one (Career Education and Societal Implications), four (Self-Awareness), five (Individual Educational Flexibility), and six (Educational Commitment to students). Inspection of the Step Down F ratios revealed significant difference in variables one (Career Education and Societal Implications), two (Occupational Awareness)

and six (Educational Commitment to Students). This may be interpreted as a general positive orientation of undergraduate students toward the implementation of Career Education in public schools. Functioning teachers within public schools seem to have assumed a more skeptical position in relation to Career Education. This position might be explained in the following quote made by a teacher directly after having filled out the Survey given for this study:

"I would like to get excited about the new approach but I know in the final analysis, "we" teachers will just have to write another damn curriculum guide and match it up to accreditation standards. I don't need more new programs, I need less writing and more time with my students."

This teacher has hit upon a very realistic problem for public school teachers. They want to improve learning for their students but each new idea requires more paper work and time. All too often the undergraduate student is graduated from our Universities with eye "blindness" that restrict his vision to the world of the classroom where students and teachers work together toward a common goal. In this limited visual field, many ideas are

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exciting, but when the responsibility of building that world is passed on to you - enthusiasm seems to be the price and skepticism the product.

For reference see Table IV indicating correlations among dependent measures.

TABLE IV

CORRELATIONS AMONG DEPENDENT MEASURES

	1	2	3	4	5	6
1.	1.0					
2.	.34	1.0				
3.	.51	.33	1.0			
4.	.40	.25	.65	1.0		
5.	.09	.24	.01	.36	1.0	
6.	.26	.13	.17	.17	.07	1.0

CHAPTER V
RECOMMENDATIONS

This study gives birth to the following questions that require additional research:

1. What degree of awareness do student teachers have in relation to curriculum development?
2. Can the variables that contribute to a decrease in teacher enthusiasm be isolated, labeled and remediated?
3. What type of leadership in curriculum development do public schools expect and need from university professors?

As public schools begin the laborious tasks of developing new or altering curriculum and offering in-service training to their staff, they often send out a cry for help to their nearest university or the experts in the State Department of Education. All too often the cry is either ignored or shyed away from. If Career Education becomes a functioning reality more personal and community service demands will be placed on the universities. As a result, this recommendation can be made to education departments within universities. An investigation of one or all of the above questions is needed due to the trend toward continual, life-long education in

our present society. Citizens need help in developing new proficiencies for their present jobs and assistance in gaining new skills for new job requirements.

APPENDICES

TABLE 1
COMPONENT ANALYSIS

*

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VARIABLE	FACTOR					
	1	2	3	4	5	6
1	-54	00	26	-00	04	19
2	08	26	-19	44	-16	-02
3	-20	07	37	19	-16	00
4	10	-23	13	-09	-14	-67
5	-12	-07	76	-05	01	04
6	-00	13	-00	03	-60	-25
7	20	14	72	-15	-11	04
8	01	-16	04	-67	-21	03
9	05	-22	60	-08	-03	-13
10	10	32	10	-60	13	-17
11	04	-33	13	-04	-41	-24
12	04	53	20	11	00	08
13	-30	-12	03	-24	-06	-08
14	-15	00	02	-25	-03	01
15	05	-04	-41	32	-18	-22
16	-32	-02	27	-34	-05	-01
17	-10	24	31	-06	-12	-52
18	-06	03	-00	-06	-87	16
19	-06	02	16	-09	16	-06
20	05	06	-00	-16	-05	-00
21	-22	-10	-21	09	08	-22
22	-04	19	-00	-38	-14	-00
23	-10	-00	11	01	-39	03
24	04	15	-15	-21	-00	-26
25	-62	-26	06	02	-17	-14
26	-13	66	-15	-04	-00	-29
27	-87	06	-13	02	01	-02
28	13	70	01	02	-06	04
29	-53	-06	-04	-08	-03	-30
30	02	22	18	07	-02	-54
31	-09	11	-01	-11	-31	-01
32	-27	07	50	22	14	-17
33	-41	56	-12	-10	-17	-01
34	-01	-00	-17	12	-04	-05
35	-40	10	16	-12	-14	01
36	-50	16	10	07	-09	-01
37	-19	13	16	-13	18	00
38	-12	01	-17	03	16	-78
39	02	06	09	00	11	08
40	02	-05	-07	-03	-07	00

* Decimal points omitted

Staff & Adm. Survey**CAREER EDUCATION SURVEY**

The purpose of this survey is to obtain your feelings about Career Education.

We appreciate your help in completing this survey. Through your efforts we will be able to develop a Career Education program that will ultimately better serve the children of Jefferson County and the State of Florida.

Sincerely,

Maxine Carr, Director
Jefferson County
Career Education Project

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11/19/73

Date _____

DIRECTIONS: Please check the appropriate spaces:

A. This survey came to me from _____

Name of School

B. I am a:

- | | | |
|--|--|--|
| <input type="checkbox"/> Student | <input type="checkbox"/> Post-Secondary Teacher | <input type="checkbox"/> Teacher |
| <input type="checkbox"/> Parent | <input type="checkbox"/> Teacher Aide | <input type="checkbox"/> Vice Principal |
| <input type="checkbox"/> K-6 Teacher | <input type="checkbox"/> Guidance Counselor | <input type="checkbox"/> Dean of boys or girls |
| <input type="checkbox"/> Junior-High Teacher | <input type="checkbox"/> Occupational Specialist | <input type="checkbox"/> Other Staff |
| <input type="checkbox"/> Senior-High Teacher | <input type="checkbox"/> Media Specialist | |
| | <input type="checkbox"/> Board Member | |

C. I am (or my children are) involved with grade(s): (CIRCLE appropriate levels)

K 1 2 3 4 5 6 7 8 9 10 11 12 13 14 Adult Education

DIRECTIONS: Please read each statement carefully. There are no right or wrong answers. Just check the line under STRONGLY AGREE, AGREE, DISAGREE, OR STRONGLY DISAGREE, whichever best describes how you feel about each statement.

<u>STRONGLY</u> <u>AGREE</u>	<u>AGREE</u>	<u>DIS-</u> <u>AGREE</u>	<u>STRONGLY</u> <u>DISAGREE</u>	
_____	_____	_____	_____	1. Elementary school is not too early for a student to start thinking about career possibilities.
_____	_____	_____	_____	2. Career education should be available to students from kindergarten through adult life.
_____	_____	_____	_____	3. Elementary schools should teach reading, writing, and arithmetic skills along with an orientation to the world of work.
_____	_____	_____	_____	4. An effective program of career education would lower the school dropout rate.
_____	_____	_____	_____	5. Students need more information about the world of work.
_____	_____	_____	_____	6. Most people finish high school not knowing what kind of career they prefer.

<u>STRONGLY AGREE</u>	<u>AGREE</u>	<u>DIS- AGREE</u>	<u>STRONGLY DISAGREE</u>	
_____	_____	_____	_____	7. You don't need a college degree to be a success.
_____	_____	_____	_____	8. An understanding and acceptance of self is important throughout life.
_____	_____	_____	_____	9. Persons need recognition as having dignity and worth.
_____	_____	_____	_____	10. Both environment and individual potential influence career development.
_____	_____	_____	_____	11. Job characteristics and, individuals must be flexible in a changing society.
_____	_____	_____	_____	12. Most individuals can learn to perform adequately in a variety of occupations.
_____	_____	_____	_____	13. Education and work are inter-related.
_____	_____	_____	_____	14. A career education program should stress all jobs as important.
_____	_____	_____	_____	15. Schools should provide opportunities to investigate various occupations.
_____	_____	_____	_____	16. The skill training offered to a student should be related to interests, aptitudes, values, and abilities.
_____	_____	_____	_____	17. The Career Education program will help students make realistic career choices.
_____	_____	_____	_____	18. Students should make their own career choices.
_____	_____	_____	_____	19. Foreign language teachers should show students how foreign languages are used in careers.

<u>STRONGLY AGREE</u>	<u>AGREE</u>	<u>DIS- AGREE</u>	<u>STRONGLY DISAGREE</u>	
_____	_____	_____	_____	20. The ways mathematics can be used in jobs can be taught in mathematics courses.
_____	_____	_____	_____	21. Students of history should be told about jobs in this field.
_____	_____	_____	_____	22. Courses such as art and music should include information about job possibilities in those fields.
_____	_____	_____	_____	23. Students should be permitted to miss regular classes in order to go on a field trip with another class.
_____	_____	_____	_____	24. As part of the high school program, students should be allowed to leave school during the day to go to work.
_____	_____	_____	_____	25. Students should experience various kinds of work before leaving high school.
_____	_____	_____	_____	26. Students need at least one paying job before leaving high school.
_____	_____	_____	_____	27. Students should receive credit toward graduation for any supervised job.
_____	_____	_____	_____	28. College bound students should make tentative career choices while in high school.
_____	_____	_____	_____	29. If schools were career-oriented, they would be useful to more students.
_____	_____	_____	_____	30. Most high school graduates are not prepared to enter the working world.
_____	_____	_____	_____	31. Parents are needed in career education programs.
_____	_____	_____	_____	32. Elementary students would benefit from people coming to school to talk about their jobs.



<u>STRONGLY AGREE</u>	<u>AGREE</u>	<u>DIS- AGREE</u>	<u>STRONGLY DISAGREE</u>	
_____	_____	_____	_____	33. Visits from industrial chemists would create more interest in a chemistry class.
_____	_____	_____	_____	34. Our local community should pay for career education if the state and federal governments cannot.
_____	_____	_____	_____	35. Career education will cost money but will be a benefit for society because of an increase in satisfactory employment.
_____	_____	_____	_____	36. The quality of education would be improved by an emphasis on work and occupations.
_____	_____	_____	_____	37. There are few areas in the school program more important than career education that need our time, money, and effort.
_____	_____	_____	_____	38. Industry representatives should become involved in Career Education programs.
_____	_____	_____	_____	39. Career Education will be of long-term value to girls as well as boys.
_____	_____	_____	_____	40. Career Education is just another fad that will soon be forgotten.

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