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ABSTRACT

To provide guidelines for educators who plan career development in school programs, this research studied the influences on career development of young children. Evidence was sought to determine how the world of work is presented to children in the elementary reading texts and materials. Samples of reading materials used in the elementary classrooms of the Old Town, Maine school system were analyzed and each student in grades 2, 4, and 6 was administered an occupational knowledge test to measure attitudes and knowledge of occupations and perceptions of sex-identified occupations. Data revealed that reading materials had little effect on the child's views of various occupations as measured by correlation between knowledge and preference. Older elementary students showed less prejudice about sex stereotyped occupations than did the younger students. Included in the appendix is Roe's Scheme for Classification of Occupations and a 10-page Career Inventory for the elementary grades. (Author/MU)

RESEARCH AND DEVELOPMENT SERIES
C/73-1

INFLUENCES ON THE CAREER DEVELOPMENT OF ELEMENTARY SCHOOL CHILDREN

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FOREWARD

The results of this research report summarize the critical findings of a study conducted by staff members of the College of Education, University of Maine, Orono. It is essential that youth be provided reading materials that expose them to a variety of career options as they participate in programs of career education. At this stage in the development and implementation of career education we lack clearly defined models for material development. The evidence from a variety of studies indicates a multi-media approach may be best for stimulating career awareness in the elementary school.

We need to continue exploring the variables that influence career development. Is it the home? A particular parent? What influence do teachers exert in the process of career choice? Do guidance counselors assume a major role in the career development process? Answers to these and other vital career development questions are needed to provide the professional educators with guidelines for infusing the curriculum with action oriented career development.

September, 1973

Charles W. Ryan

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I. INTRODUCTION

The purpose of this study was to examine influences on the career development of young children. In essence, the study gathered data relevant to sex typing, career stereotyping, career materials available in the elementary school, and career aspirations of 2nd, 4th, and 6th grade children. It is essential that teachers and elementary school counselors provide children with meaningful career development experiences. During the elementary school years, boys and girls need experiences that provide maximal opportunity for career inquiry.

The teacher and the counselor can play an instrumental part in building an expanded vision of career options by carefully utilizing the materials and products of our culture. It is appropriate to ask "Do children receive varied and multiple exposures to careers through the materials used in reading programs?" Tiedeman and O'Hara (1962) have stated that "role models begin to exert their influences on vocational choice early in the child's school experience." Using this concept, one speculates whether children's career aspirations are expanded or constricted by the materials available for reading. Lifton (1960) suggests that the schools may unwittingly distort and misrepresent the work world by selecting materials that are biased.

Roe (1957) studied the relationship of early experience to

career choice: she illustrated the important role played by childhood attitudes and values in preferences toward occupations. If Roe's findings are accurate, then it is important to determine the influence of reading materials on the career development of children. Creason and Schilson (1970) state that teachers and counselors have a responsibility to provide pre-vocational experiences and appropriate exploratory experiences. The exposure to reliable published materials would be one type of career development experience that teachers and counselors should provide. It is essential that accurate occupational information be available for elementary school children.

Several studies of five-year olds demonstrate the degree to which contemporary society differentially socializes boys and girls. A study reported by Maccoby (1968) revealed that when five-year olds were exposed to a series of paired pictures depicting stereotyped sex appropriate activities, both sexes knew what our culture expects boys and girls to do. Douvan and Adelson (1966) found that "the bulk of girls' choices (95 percent) fall into the following four categories: personal aide, social aide, white collar traditional, and glamour fashion."

The purpose of this study is to replicate a portion of the earlier Tennyson and Monnens (1963) research and identify the influences on career development of young children. The study was designed to answer the following questions:

1. What reading series are represented in the basal materials used by the sample children in grades 2, 4, and 6?

2. What career occupations are represented in the reading series used by the sample children in grades 2, 4, and 6?

3. How is the world of work presented to children in the reading materials available in the classroom library?

4. How adequate is the coverage given the world of work in classroom reading material?

5. To what extent are certain occupational areas emphasized in basal readers and classroom reading materials to the exclusion of other areas?

6. Do the reading series vary in their occupational emphasis?

Hypothesis

In essence, evidence is needed to determine how the world of work is presented to children in their elementary reading texts and materials. Tennyson and Monnens used 1962 reading series that have been extensively revised and the use of occupational models may have changed. The reading series to be reviewed in this study include more recent revisions in use in a selected Maine public school district in 1973.

The following hypotheses were generated by the research-questions posed.

Hypothesis 1: There will be several significant correlations between the subjects' occupational knowledge and their occupational preference or non-preference.

Hypothesis 2: There will be several significant correlations between subjects' occupational knowledge and their selection of occupations as being "suitable" to males or females.

Hypothesis 3: There will be an increase in correlations between occupational knowledge and occupation preference or non-preference from the second to the sixth grades.

Hypothesis 4: There will be an increase in correlations between occupational knowledge and subjects' selection of occupations "suitable" for males and females from the second to the sixth grades.

Hypothesis 5: The category of occupation preferred or not preferred will be proportional with the number of references to each occupational category in the child's reading material.

Hypothesis 6: The category of occupation that is seen as most suitable for males or females will be proportional to the number of jobs characterized for either sex in the child's reading material.

II. PROCEDURES AND DATA SOURCES

An understanding of the procedures and methodology used to fulfill the purpose of this research is needed to provide the reader with an overview of data acquisition techniques.

Sample

The school system of Old Town, Maine was selected for inclusion in the study for several reasons. First, the population represents a heterogeneous mix of professional, semi-professional, managerial, skilled, and semi-skilled occupations among the families of school age children. Second, the Old Town school officials agreed to participate in the study even though the study commenced at a rather late time in the 1972-73 school year. The lateness of federal funding eliminated several other school districts in different geographical regions. Third, the children in the Old Town school system are exposed to a variety of real career models in the labor force and have comparative references in their reading materials. A stratified sample of children in grades 2, 4, and 6 was selected for inclusion in the study.

Method

The data collected was of two types:

1. Samples of the reading material available in the classroom libraries and the basal reading materials used in classroom instruction were analyzed and the percent of coverage for

each of the following occupational categories were computed (see Appendix A for a description of each category):

(A) professional
(B) semi-professional
(C) skilled
(D) semi-skilled
(E) unskilled
(F) unclassifiable

2. Each student in grades 2, 4, and 6 was administered an occupational knowledge test to measure (a) occupational knowledge, (b) occupational attitude, and (c) perception of sex identified occupations. (See Appendix B)

Instrumentation

A. Occupational Knowledge Test - The basic instrument was developed by staff members of the Comprehensive Evaluation Project, Stanford, California (see Appendix B). This test was designed to assess children's knowledge of occupations and their occupational-educational expectations. The test contains 24 questions selected from among the following categories:

1. The education or training required for specific occupations.
2. The nature or work involved in specific occupations.
3. Recognition of the relation of other occupations to a specified occupation.
4. Recognition of the field of work corresponding to a specific occupation.

B. In addition to the items concerning knowledge of occupations two additional categories were used:

1. Occupational intentions - Identification of (a) career preference and (b) identification of those careers which the student would not prefer.

2. Sex stereotyping - Sex identified occupations as perceived by the students consisted of a listing of varied occupations and required the students to make two choices: (a) identify the occupation a man would do and (b) identify the occupation which a woman would do. The survey instrument was prepared by the research team (see Form C, Appendix B).

Analysis of Data

The data analysis consisted of the following treatments:

1. Comparison of reading series occupational illustrations with occupational classifications and descriptions in the Directory of Occupational Titles (DOT).

2. Analysis of reading material available in the classroom libraries for evidence of occupational sex typing or racial bias. A selected sample of reading materials was reviewed using an occupational category checklist (see Appendix A).

3. Analysis of reading material available in classroom libraries for evidence of occupational status biasing, e.g., undue presentation of professional careers. A selected sample of reading materials was reviewed using the DOT system (see Appendix C).

4. Analysis of students' attitudes toward certain career

classifications was computed by descriptive classification of responses to a Career Attitude Survey (Form C of Occupational Knowledge Test, Appendix B).

5. The mean scores computed in this study and the mean score computed in the 1963 Tennyson Study was compared using a t-test statistical procedure.

The above analyses will form the basis for rejecting or accepting the hypotheses and answering the research questions. For purposes of clarity the data analysis in Part III will be presented in two sections. Section A will detail the statistical analysis conducted on the Occupational Knowledge Test and the occupational preference data. Section B will present a descriptive analysis of the findings generated by review of classroom library materials and reading series as used in each classroom.

III. RESULTS

The data generated by the research team is of two specific types, statistical and descriptive. Various treatments and critical review were applied to both test data and children's reading material. For purposes of clarity each of the major analyses is presented in two sections:

Section A - Occupational Knowledge and Attitude Test Data

Sixty-three second grade students, sixty-one fourth grade

students and seventy-one sixth grade students participated in this study. Each student was asked to select from a list of twelve occupations those he (1) would prefer, (2) would not prefer, (3) thought a man should do, and (4) thought a woman should do. These twelve occupations were randomly chosen at the rate of two from each of six basic job categories: (1) professional level policy making; (2) professional; (3) semi-professional; (4) skilled; (5) semi-skilled; (6) unskilled. The subjects' choices were then correlated with their score on the "Occupational Knowledge" Test. It is essential to point out that this analysis in no way shows causality but merely indicates those variables which are related. The significant correlations for each of the four lists are presented in Tables 1, 2, 3, and 4.

Hypothesis 1: There will be several significant correlations between the subjects' occupational knowledge and their occupational preference or non-preference.

This hypothesis was not supported by the data. There were only four significant relationships between occupational knowledge and job preference (Table 1). These relationships were all with female students and two were negatively significant. There was only one correlation between occupational knowledge and career non-preference (Table 2) and was negative for the female students. Evidently, knowledge of occupations has little to do with a person's preference and non-preference. It is plausible

to assume that children of this age rely more on affect than knowledge in making preferences about occupations.

Table 1

Significant Correlations Between Occupational Knowledge, Grade Level, Sex and Job Preference

OCCUPATIONS	KNOWLEDGE					
	Grade 2		Grade 3		Grade 4	
	Male	Female	Male	Female	Male	Female
1.Scientist						
2.Farmer						
3.Postal Worker		-.442		.443		
4.Telephone Operator						
5.Movie Star						
6.House Painter						-.426
7.Laborer						
8.Singer						
9.Doctor						
10.Equipment Operator						.403
11.News Reporter						
12.Service Station Attendant						

All correlations illustrated are significant at .05 level.

Table 2

Significant Correlations Between Occupational Knowledge, Grade Level, Sex and Job Non-Preference

OCCUPATIONS	KNOWLEDGE					
	Grade 2		Grade 3		Grade 6	
	Male	Female	Male	Female	Male	Female
1. Scientist						
2. Farmer						
3. Postal Worker						
4. Telephone Operator						
5. Movie Star						
6. House Painter						
7. Laborer						
8. Singer						
9. Doctor						
10. Equipment Operator						
11. News Reporter		-.427				
12. Service Station Attendant						

All correlations illustrated are significant at .05 level.

Hypothesis 2: There will be several significant correlations between subjects' occupational knowledge and their selection of occupations as being "suitable" to males or females.

This hypothesis was partially supported in that several significant correlations between "sex suitable" occupations and occupational knowledge were found (Tables 3 and 4). There does not appear to be any logical reason for those occupations which were significantly related to occupational knowledge. However, there is an interaction between grades and sex. The girls in the second grade showed a higher relationship between occupational knowledge and occupations they felt were "suitable" for men or women than did the boys. This relationship was reversed in the fourth grade with the boys having the higher relationships and in the sixth grade no consistent relationships at all.

Hypothesis 3: There will be an increase in correlations between occupational knowledge and occupation preference or non-preference from the second to the sixth grades.

This hypothesis was not supported and it appears that occupational knowledge has a detrimental effect on specifying job preference or non-preference as the age of the child increases (see Tables 1 and 2).

Hypothesis 4: There will be an increase in correlations between occupational knowledge and subjects' selection of occupations "suitable" for males and females from the second to the sixth grade.

This hypothesis was supported to the extent that sixth grade subjects showed fewer correlations than either second grade or fourth grade subjects. The greatest difference is between sixth grade and second grade girls and sixth grade and fourth grade boys (See Tables 3 and 4).

Table 3

Significant Correlations Between Occupational Knowledge, Grade Level, Sex and Jobs Viewed as Male Oriented

OCCUPATIONS	KNOWLEDGE					
	Grade 2		Grade 4		Grade 6	
	Male	Female	Male	Female	Male	Female
1. Scientist						
2. Farmer			.452			
3. Postal Worker			.429			.465
4. Telephone Operator						
5. Movie Star	.366	.382	.447			
6. House Painter						
7. Laborer		.372				
8. Singer			.407			.432
9. Doctor			.398	.534		
10. Equipment Operator		.417				
11. News Reporter						
12. Service Station Attendant				.442	.388	

All correlations illustrated are significant at .05 level.

Table 4

Significant Correlations Between Occupational Knowledge, Grade Level, Sex and Jobs Viewed as Female Oriented

OCCUPATIONS	KNOWLEDGE					
	Grade 2		Grade 4		Grade 6	
	Male	Female	Male	Female	Male	Female
1. Scientist		.418	.470			.429
2. Farmer		.518				
3. Postal Worker						
4. Telephone Operator					.630	
5. Movie Star			.575			
6. House Painter		.516	.376			
7. Laborer	.455	.543				
8. Singer		.471	.575			
9. Doctor						
10. Equipment Operator		.577	.368			
11. News Reporter						
12. Service Station Attendant			.407			

All correlations illustrated are significant at .05 level.

Hypothesis 5: The category of occupation preferred or not preferred will be proportional with the number of references to each occupational category in the childs' reading material.

Hypothesis 6: The category of occupation that is seen as most suitable for males or females will be proportional to the number of jobs characterized for either sex in the childs' reading material.

These two hypotheses were treated together and the data for each of the three grade levels are presented in Tables 5, 6, 7.

Hypothesis 5 was not supported. The type of job preferred or not preferred by the subjects is not proportionate to the classification of jobs contained in their reading material. This holds true for all grades. For example, Table 5 shows that skilled occupations are mentioned more often in the second grade reading material but more male students preferred professional I and more female students preferred Professional 2. Boys put semi-skilled as their non-preferred while girls indicated that they would not prefer skilled occupations. Tables 6 and 7 contain similar comparisons for fourth and sixth grade levels respectively.

Hypothesis 6 was only partially supported. The students indicated that more jobs were suited for males than females. Similarly the reading material also contained more "male occupations" than female. However, the children's designations

were not proportional with the reading material and the overloading of male jobs by the students may merely be a cultural bias and not directly related to the reading material.

The fact that children's job knowledge appears only mildly related to their career preferences, non-preferences, and male or female suitable occupations poses a serious question regarding the value of research into sex and occupational biases as portrayed in the books children use in school. Our limited statistical data suggest that caution be used in interpreting studies that investigate sex or career biasing in children's literature. At present, the conclusions for the above cited variables are lacking a substantial empirical basis for action to revise textbooks and other reading materials used in schools to help children learn to read and write.

Table 5

Occupational Categories Contained in Second Grade Reading Material and Subjects' Preference/Non-Preference and Perceptions as to Male or Female "Suitable."

CATEGORY	Number of Times Mentioned in Literature	MALES P	MALES NP	MALES Sex Oriented	FEMALES P	FEMALES NP	FEMALES Sex Oriented
Professional 1	38	48	23		28	31	
Professional 2	10	24	36		38	20	
Semi-Professional	36	34	31		35	21	
Skilled	64	32	28		22	38	
Semi-Skilled	48	19	42		22	33	
Un-skilled	9	15	53		16	42	
Men	165	(MO)		368			275
Women	40	(FO)		205			222

Note: Letters indicate P=Preferred, NP=Not preferred, MO=Male Suitable Occupations, FO=Female Suitable Occupations

Table 6

Occupational Categories Contained in Fourth Grade Reading Material and Subjects' Preference/Non-Preference and Perceptions as to Male or Female "Suitable."

CATEGORY	Number of Times Mentioned in Literature	MALES P	MALES NP	MALES Sex Oriented	FEMALES P	FEMALES NP	FEMALES Sex Oriented
Professional 1	30	40	20		23	28	
Professional 2	10	41	23		37	10	
Semi-Professional	9	27	18		30	18	
Skilled	7	17	34		22	24	
Semi-Skilled	31	29	28		14	27	
Un-skilled	3	11	42		13	39	
Men	81	(MO)		287			275
Women	8	(FO)		247			208

Note: Letters indicate P=preferred, NP=Not preferred, MO=Male Suitable occupations, FO=Female Suitable Occupations

Table 7

Occupational Categories Contained in Sixth Grade Reading Material and Subjects' Preference/Non Preference and Perceptions as to Male or Female "Suitable."

CATEGORY	Number of Times Mentioned in Literature	MALES P	MALES NP	MALES Sex Oriented	FEMALE P	FEMALE NP	FEMALE Sex Oriented
Professional 1	59	7	45		25	37	
Professional 2	32	49	18		42	22	
Semi-Professional	15	18	25		42	19	
Skilled	37	28	26		22	39	
Semi-Skilled	30	36	20		30	31	
Un-skilled	18	10	41		19	32	
Men	82	(MO)		302			339
Women	24	(FO)		263			274

Note: Letters indicate P=Preferred, NP=Not preferred, MO=Male Suitable occupations, FO=Female Suitable occupations

SECTION B - Descriptive Analysis of Reading Material Survey

A descriptive analysis was made of the occupations cited in classroom library materials, the basal reading series used in each classroom and the amount of sex and race typing in the materials. To facilitate interpretation, the data for each specific research question posed in Part I will be restated and a descriptive analysis presented.

Question 1: What basal reading series are represented in the reading materials used by the sample children in grades 2, 4, and 6?

A variety of individual and social factors tend to restrict the range of career exploration activities elementary school children engage in. The reading material used by the classroom teacher is an important variable in the development of reading skills and career awareness. Perceptions of various work roles and career opportunities can either be stimulated or retarded by the view of the work world presented in the reading material. Do the reading series used by the teachers in this study present a realistic view of the world of work? Table 8 presents the reading series used in grades 2, 4, and 6 and an estimate of occupational citations referenced in each.

An analysis of each reading series was conducted to determine the number of career citations and their occupational level. The job citations were classified according to a method devised by the U.S. Department of Labor and will be presented in conjunction with Research Question 2.

Table 8

Basal Reading Series Used By Sample Children in Study Schools and Number of Jobs Cited

Reading Series	Number of Jobs Cited			
	M	F	W	Non-White
Number 1 Betts Basic Readers, 3rd Ed. American Book Co., 1965	268	42	276	34
Number 2 Reading Series 360, Ginn and Co., 1969	175	42	170	47
Number 3 Reading Series 100, Ginn and Co., 1966	140	54	172	22
Number 4 Reading for Meaning Houghton-Mifflin Co., 1966	95	11	95	11
Number 5 Open Highways Series Scott Foresman Co., 1965	162	47	189	20

Note: M = Male, F = Female, W = White and NW = Non-White job citations.

Question 2: What occupations are presented in the basal reading series used by the study schools?

A review of the basal reading series utilized by the teachers in five elementary schools, grades 2, 4, and 6, revealed the following: children in these particular grades are exposed to occupations that are not a representative sample of the total number of occupations which are found in the United States. Table 9 provides an analysis according to the Dictionary of Occupational

Titles of the jobs cited in the basal reading series.

Table 9

Classification of Occupations by Basal Reading Series

Occupational Group	Reading Series #1	#2	#3	#4	#5
Professional and Managerial	27	55	29	27	66
Clerical and Sales	6	13	8	14	12
Service	10	29	29	14	47
Agriculture, Fishery, Forestry and Kindred	9	14	14	12	13
Skilled	11	27	5	8	18
Semi-Skilled	16	44	18	17	35
Unskilled	27	7	42	14	18
Total	106	189	145	106	209

Refer to Table 8 for identification of Basal Reading Series.

The present research findings are comparable to those reporced by Tennyson (1963). A total of 197 separate occupations were reported in their career study, and our findings indicate that an average of 151 were cited for five basal reading series.

Occupational representation in reading series or materials available to elementary school children should also reflect an accurate portrayal of the American business-industrial complex. The 1965 Dictionary of Occupational Titles lists over 24,000

different job titles from which a career can be chosen. It is important that the materials children read reflect the diversity and complexity of the career choices. The findings of our review indicate that occupational representation in the basal readers is not reflective of the actual job market. Table 10 presents a tabulation of occupations by occupational group and frequency of mention.

Table 10

Occupations Classified According to Group and Frequency of Mention

Occupational Group	Grade 2 No. Times Mentioned No.	Grade 4 No. Times Mentioned No.	Grade 6 No. Times Mentioned No.
Professional and Managerial	84	149	122
Clerical and Sales	21	40	34
Service	58	100	90
Agriculture, Fishery, Forestry and Kindred	28	48	39
Skilled	32	42	31
Semi-Skilled	62	86	70
Unskilled	49	101	74
Total	334	566	460

Question 3: How is the world of work presented to children in the reading materials available in the classroom library?

Previous research by Creason and Schilson (1970) reported that a child's perception of the work world is a direct outcome of the career models exposed to, both in reading material and daily contact. For example, children in upper-lower class homes felt that both mothers and fathers could work in factories. Children from the upper-middle class felt that men should be associated with "white collar" jobs and that mothers should not work outside their own homes. The presentation of various occupational roles in diverse reading materials may have significant impact upon the career perceptions of children. A review of classroom library materials indicated that children in grades 2, 4, and 6 have fiction and non-fiction resources available. Fantasy was well represented, and, of course, did not portray life as "it really is." A review of the materials examined by grade level is presented in Tables 11, 12, and 13. See Appendix D for the Rules for Review of classroom library materials.

Table 11

Career Citations in Second Grade Classroom Library Reading Materials

Grade 2	Stories With Men	Race	Sex	Stories With Women	Race	Sex
Career Cited	Truck Driver (4)	W	M	Bookmobile Driver	W	F
	Fireman (28)	W	M			
	Telephone Tk Dr.	W	M			
	Sea Captain	W	M			
	Cook (2)	W	M	Housekeeper (5)	W	F
	Moving Man	W	M			
	Farmer (5)	W	M			
	Waiter	W	M			
	Store Clerk	W	M			
	Ice Cream Vendor	W	M			
	Musician (3)	W	M	Drum Player	W	F
	Museum Guard	W	M			
	Alligator Wrestler	W	M			
	Cowboy (2)	W	M			
	Photographer (2)	W	M			
	Dancer (25)	W	M	Dancer (25)	W	F
	Carpenter	W	M			
	Newspaper Seller	W	M			
	Policeman (30)	27W	M			
		3B	M			
	Engineer (Train)	W	M			
	Inventor (9)	W	M			
	Pilot (2)	W	M			
	Servant	W	M	Servant	W	F
	Businessman	W	M	Lost & Found Manager	W	F
	Taxi Driver	W	M			
	Bus Driver	W	M			
	Subway Conductor	W	M			
	Teacher	B	M	Teacher (3)	W	F
	Baker	1W	M			
		1B	M			
	Printer (3)	2W	M			
		1B	M			
	Construction Worker	W	M			

Table 11 (continued)

Baseball player	B	M			
Elementary School Principal (2)	W	M			
Grocery Store Clerk	W	M			
Scientist	W	M	Scientist (2)	W	F
Architect	W	M			
Artist	W	M	Artist	W	F
Physician (5)	W	M			
Clergyman	W	M			
Bandmaster	W	M			
Congressman (7)	W	M			
President (5)	W	M			
Pageboy	W	M			
Soldiers and Sailors (2)	W	M			
Christmas Tree Seller	W	M			
Barber	W	M			
Florist	W	M			
Air Force Capt.	W	M			
			Telephone Operator	W	F

*Numbers in parenthesis indicate the number of times a particular occupation was cited. Code letters are W=white, B=Black, I=Indian, M=Male, and F=Female.

A breakdown of the occupations cited in grade 2 classroom library reading materials according to the Dictionary of Occupational Titles is presented in Table 12.

Table 12

Classification of Occupations

Occupational Group	Number	Per Cent
Professional & Managerial	41	21
Clerical and Sales	4	3
Service	34	12
Agriculture, Fishery, Forestry & Kindred	5	3
Skilled	64	32
Semi-Skilled	48	24
Unskilled	9	5
Total	200	100

In terms of the total number of career opportunities available for one to choose from the representations in grade 2 reading materials are inadequate. Female career citations present a very stereotyped view of work roles.

A review of career citations in grade 4 reading materials is presented in Table 13.

Table 13

Career Citations in Fourth Grade Classroom Library Reading Materials

Grade 4	Stories With Men	Race	Sex	Stories With Women	Race	Sex
Career	Soldier & Sailor	16W	M			
		1B	M			

Table 13 (continued)

Artist (3)	W	M			
Construction Worker	W	M			
Store Owner	W	M			
Blacksmith	W	M			
Servant	B	M			
Mine Foreman	W	M			
Police Chief	W	M			
Forester	W	M			
Logger	W	M			
Mailman (2)	W	M			
Hobo (tramp)	W	M			
Conductor	W	M			
Yardman	W	M			
Milkman	W	M			
Wood Carver	W	M	Pottery Maker	I	F
Explorer (2)	W	M			
Carpenter	W	M			
Minister (2)	W	M	Nun	W	F
Deep Sea Diver	W	M			
Army Officer	W	M			
Store Clerk	W	M	Cashier	W	F
Policeman (4)	W	M			
Pilot	W	M	Stewardess	W	F
Cartographer	W	M			
Geologist (2)	W	M			
Farmer (10)	W	M			
Navy Officer (3)	W	M			
Astronaut (2)	W	M			
Scientists	-	-			
Cowboy (4)	W	M			
Headmaster (2)	W	M			
Coach	W	M			
Executive	W	M			
Physician (4)	W	M	Nurse	W	F
Museum Owner	W	M			
Architect	W	M			
Judge	W	M			
			Housewife	W	F

*Number in parenthesis indicates the number of times a particular career was cited. Code letters are W=white, B=black, I=Indian, M=Male, and F=Female

It is interesting to note the paucity of career citations that illustrate women in professional and skilled technical careers. It is possible that our random sample of materials missed reading sources that presented a balanced view of the work world. The evidence tends to indicate what the situation is, not what it should be.

Table 14

Classifications of Occupations

Occupational Group	Number	Per Cent
Professional and Managerial	29	32
Clerical and Sales	2	2
Service	6	6
Agriculture, Fishery, Forestry, & Kindred	12	13
Skilled	7	7
Semi-Skilled	31	34
Unskilled	3	3
Total	90	100

The data in Tables 11, 12, 13 and 14 reflect the limited career models that young females encounter in typical reading material available in the school.

Table 15

Career Citations in Sixth Grade Classroom
Library Reading Materials

Grade 6	Stories With Men	Race	Sex	Stories With Women	Race	Sex
Career Cited	Photographer(2)	W	M			
	Sailor (7)	W	M			
	Carpenter(2)	W	M			
	Diver (3)	W	M			
	Dectective (4)	W	M	Dectective(3)	W	F
	Lobsterman	W	M			
	Businessman	W	M			
	Physician (8)	W	M	Nurse (2)	W	F
	Author (3)	W	M			
	Oysterman	W	M			
	Fisherman(2)	W	M			
	Farmer(9)	W	M	Farmer (2)	W	F
	Fishcleaner	W	M			
	Ship's Pilot	W	M			
	Hotel Porter	W	M			
	Ships Captain(4)	W	M			
	Scientist(6)	W	M			
	Gardener	W	M			
	Electrician	W	M			
	TV Producer	W	M			
	Cameraman	W	M			
	TV Director	W	M			
	Welder	W	M			
	Draftsman (8)	W	M			
	Hunter (5)	W	M			
	Astronaut (4)	W	M			
	Astronomer	W	M			
	Doorman (2)	W	M			
	Policeman (4)	W	M			
	Dentist (2)	W	M			
	Superintendent	W	M			
	Repairman	W	M	Doll Repairman	W	F
	Horse Rustler	W	M			
	Mailman	W	M			
	Artist	W	M			
	Chauffer	B	M			
	Circus Roustabout (2)	W	M			

Table 15 (continued)

Animal Tender	B	M			
Bricklayer	W	M			
Mechanical Engineer	W	M			
Migrant Farm Worker	W	M			
Ranch Hand	W	M			
Soldier (5)	W	M			
Professional Hockey Player	W	M			
Coach (2)	W	M			
Dental Assistant	W	M			
Explorer	W	M			
Nuclear Researcher (10)	W	M			
Professor (3)	W	M			
Santa Claus	W	M			
Wood carver	W	M			
Army Officer	W	M			
Radio Operator(2)	W	M			
Western Union Clerk	W	M	Soda Fountain Clerk	W	F
Conductor(Music)	W	M			
Musician	W	M			
Teacher (2)	W	M	Teacher (4)	W	F
Marine Biologist	W	M			
Game Warden	W	M			
Glassblower(2)	W	M			
Miner (2)	W	M			
Factory Worker	W	M			
Window Installers	W	M			
President	W	M			
Judge (2)	W	M			
Announcer(radio)	W	M			
Pipelayers	W	M			
Oil Workers	W	M			
Fireman (4)	W	M			
Butler	W	M	Housekeeper (2)	W	F
Banker (2)	W	M			
Engineer (6)	W	M			
Cattleman	W	M			
Diplomat	W	M			

Table 15 (continued)

Research Chemist	W	M			
Barber	W	M	Hairdresser	W	F
Bellboy	W	M			
Superintendent Apt. Bldg.	W	M			
Store Owner	W	M			
Dancer (2)	W	M	Dancer (2)	W	F
			Reader	W	F
			Interior Decorator	W	F
			Librarian	W	F
			Housewife	W	F
			Cook	W	F
			Circus Fat Lady	W	F

*Numbers in parenthesis indicate number of times a particular career was cited. Code letters are W=white, B=black, I=indian, M=male and F=female.

The evidence suggests a much wider overview of the work world is presented to sixth grade children. For boys, the variety is more representative of career opportunities at the professional and managerial, skilled, and semi-skilled level.

Females who utilize the classroom reading materials are exposed to a limited number of career models in the stories. The career models represent both sex and occupational stereotyping.

Table 16

Classifications of Occupations

Occupational Group	Number	Per Cent
Professional and Managerial	70	36
Clerical and Sales	0	0
Service	21	12
Agriculture, Fishery, Forestry & Kindred	15	8
Skilled	37	19
Semi-Skilled	30	16
Unskilled	18	9
Total	191	100

Question 4: How adequate is the coverage given the world of work in classroom reading materials?

Generally speaking, the coverage provided the full range of career options available in our society is not presented in the materials reviewed. Children in the study schools are not receiving a representative portrayal of work in America. The female occupations present a stereotyped view of women at work. For example, women in the classroom reading materials are seen working as servants, teachers, housekeepers, cashiers, stewardesses, nurses, and housewives. A portrayal of women as professional or skilled workers is not available. It is imperative

that the coverage be increased for careers in the areas of clerical, sales, services, agriculture, forestry, technical, and, the crafts (plumber, carpenter, mason).

It may not be a fair assessment to portray all reading materials as biased or inadequate as a result of a randomly selected sample. The sampling techniques did not permit a review of all materials in each classroom. Writers of childrens reading materials should make a concerted effort to illustrate career roles as they exist in reality, not in fantasy. Our review elicited 58 separate career citations across all seven classifications used by the DOT in grade 2. In grade 4 we tablulated 44 career illustrations and for grade 6 a total of 94. The DOT defines over 24000 separate occupations in the 1963 edition. It is obvious that the view of the world of work is rather limited as presented in classroom reading materials.

Question 5: To what extent are certain occupational areas emphasized in basal readers and classroom reading materials to the exclusion of other areas?

In the United States the selection and attainment of career identity remains a constant pressure among Americans of all persuasions. Values for certain occupations permeate the life style of most middle class families and they exert considerable influence on the career choices of their children. Work is still perceived as a valued endeavor and to attain work success

is deemed a worthy goal. The variables that influence career choice range from parental pressure, films, printed materials, and a variety of adult models. However, it is necessary that we point out a major discrepancy existing in our culture. Workers who occupy the "blue collar" jobs are perceived by those in managerial or professional positions to be less worthy. Television further supports the myth that only those in "white collar" occupations are successful, satisfied, and lead happy lives. A survey of television programs during prime time has revealed that only one out of every 10 careers portrayed is a "blue collar" occupation. What a sad situation to present our youth, especially in terms of present attempts to dignify all work.

The findings of this research study reveal that careers illustrated in classroom reading materials are predominately in professional-managerial, skilled, and semi-skilled occupations. Occupations portrayed in the professional-managerial areas are consistently inventors, engineers, physicians, artists, architects, clergymen, congressmen, and presidents. Careers in aerospace, teaching, law, and the health occupations are neglected. It is not an accurate view of the variety of careers open to individuals.

In the skilled and semi-skilled occupations we documented the following: truck driver, photographer, carpenter, taxi driver, construction worker, barber, wood carver, welder, and

chauffer. It was interesting to note that the chauffer was a Black male, the baseball player was a Black male and the pottery maker was an Indian female. Over 90% of the careers that were illustrated in the reading materials were occupied by white males and females. Does this type of portrayal reinforce the view that Negroes and other minority groups are shiftless, etc.? Children who read these stories might form this opinion if counter measures are not available. The need for a sound program of career education is evident.

Question 6: Do the basal reading series vary in their occupational emphasis?

The influence of elementary school readers is not easily determined as we seek to isolate critical variables in career development. A review of pertinent research suggests that readers play an important role in helping children develop a view of their world. Does the mere frequency of occupational mention or illustration facilitate the development of career awareness? Awareness implies either a visual, tactile or auditory stimulation to alert the receiving organism. Children who enter school at age 5 are estimated to possess a basic vocabulary of 4,500 words which is double the number of words in the vocabulary of the pre-television generation.

A total of 5 basal reading series were examined to determine

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A total of 5 basal reading series were examined to determine

if there were significant variations across each series in the frequency with which occupations were mentioned. No significant variations were noted for the five basal reading series noted in Table 9. At best, the reading series reviewed provide a distorted view of the occupational world and are particularly misleading for females. All reviewed materials appear to be biased in favor of professional and managerial occupations. Skilled and semi-skilled representations reflect a rather accurate portrayal of the work world as it now exists. There are very few career opportunities for youth who lack technical skills and advanced training beyond high school. Reading materials for elementary school youth must reflect the situation as it exists and should also suggest what could be. Have we really challenged the intellectual talents of school children with the limited exposure to career options that exist in most reading materials and series?

IV. SUMMARY AND RECOMMENDATION

The implications of these research results are premised on the assumption that career decision making is a developmental process and this process is enhanced through accurate career information. Materials that children read or view are extremely critical in the total process and must reflect an accurate view of the work world. Personal contact as a mechanism of career development was not investigated in this study. The primary focus was an investigation of the impact reading materials and commonly used reading series have in presenting the career world to children. Additional questions dealt with the perceptions held by boys and girls for commonly known careers. A summary of the findings follows.

The analysis of the data collected to evaluate the six hypotheses revealed that the reading material had little effect on the child's view of various occupations as measured by correlation between knowledge of occupations and individual preferences or prejudices. For example, no significant correlations were found between the children's occupational knowledge and their preferred occupations. Nor did any significant change in occupational preference occur between the second and sixth grades in relation to occupational knowledge. Similarly, the occupational preferences had no significant relationship

with the number of references cited for any single occupation or group of occupations in the reading material.

The prejudices of the students in relation to those jobs which are deemed as most suitable to female or male workers were only slightly more related to occupational knowledge. However, these relationships were difficult to explain. For instance, the sixth grade students showed fewer prejudices about sex stereotyped occupations than did second or fourth graders. All subjects identified more of the occupations listed as being suitable for males than females. This result, however, is probably not due to the reading material because the occupations so identified had little relationship to the jobs so characterized in the reading material.

Two conclusions can be drawn from this data. First, children at this age are inconsistent about the type of occupation they would prefer probably because of lack of contact with the actual occupations. This conclusion underlines the need for development of career awareness programs at this level when children are more open to opportunities in various areas.

Second, prejudices tend to be fewer concerning occupational positions as the child grows older. However this finding is probably more the result of changes in society than reading

material. Additionally, many of today's occupations are structured so that they are more suited for male employees which is reflected in student prejudices.

The descriptive analysis applied to classroom reading materials and basal reading series indicated that career roles are biased in the direction of greater male representation. Quality as well as quantity of career choices favor the male characters and range from professional to unskilled. The five major reading series, Reading 360 Series, The Young American Basic Reading Program, Reading Series 100, Reading for Meaning, and Open Highway Series, devote a disproportionate number of representations to male careers. Women are not portrayed on anywhere near a parity basis.

Frequency of mention is a powerful variable in influencing career development of children. A review of data in Table 10 indicates professional and managerial occupations receive mention about 2 to 1 more often than clerical, sales, service, skilled, and semi-skilled careers. The material reviewed conveys to children the image of professional-managerial careers as being of more value in our society. The findings suggest that other career options are not as worthy and probably deserve little thought while in school. The 1972 labor force was composed of 42 per cent females, yet the labor force depicted

in elementary school readers contained only reference to women in stereotyped career settings. For example, teaching, clerical, domestic, dancing, cashier, nursing and housewife were the frequent citations. When the data were pooled across publishers the message is rather clear--practically all men work but few women work. While it is not easy to determine the exact percentage of mothers who work, it is certainly much larger than the basal readers and classroom reading material would infer. Also, a sizable percentage of minority group mothers do work and they are grossly unrepresented in the materials reviewed (see Tables 11, 13, 15).

It is also clear that a great percentage of females are employed at clerical and sales occupations and at factory manual occupations than are employed in the professions. Teachers were an occupational citation that appeared frequently in the analysis of reading materials. According to Harbeson (1967) only 7 per cent of women workers are employed in this field. Females in this sample are encountering a limited number of career representations in typical reading material available to them. The material reviewed was similar to that examined by Britton (1973) who found females have vastly limited options in terms of lifestyles and career roles. An underlying assumption that permeates our findings

is the tremendous impact these reading series and materials have on images and stereotypes of females in the work world. Females in particular would develop a very inaccurate portrayal of themselves as workers in what appears to be a male dominated labor market.

Recommendations:

The findings of one isolated study do not provide all the evidence needed for a major infusion of career development theory and practice within the school system. A variety of significant recommendations have been generated by this study that seem worthy of serious consideration by the education profession. Publishers of children's literature and standardized text books may want to consider the following recommendations as they prepare materials for use in the schools.

Recommendation 1: Materials must be prepared that present women at work in a variety of occupations--clerical, sales, factory manual, service, managerial, and professional. Information of this type will provide images of life as it is and other roles women can assume. Women are assuming new and varied work roles in society which should be reflected as a positive development in the materials available to children.

Recommendation 2: Women must be exposed to role models of working women via the use of community consultants, field visits, films, slides, text materials and literature. Career development concepts must become an integral part of the elementary school curriculum.

Recommendation 3: In-service training of teachers must reflect a concern for curriculum development and change that infuses the school with career guidance practices. Teachers need training in (a) manpower trends, (b) career development theory, (c) use of community resources, (d) career education, and (e) curriculum material development. It is recommended that administrators provide the leadership for sequential and regular in-service training sessions to address the above concerns.

Recommendation 4: School counselors should develop a consultant liaison model to help teachers bridge the gap between school and community. For example, a list of females who hold a job in what is typically a male-dominated career field could be researched and provided to the classroom teacher.

Recommendation 5: All schools should institute a program of career development activities that will be multi-faceted in scope. Children need to be exposed to a variety of career options and the attendant skill requirements needed for success in their areas of interest. Teachers in training need to be exposed to career development theory and career education concepts prior to entering student teaching or the classroom. A vital portion of this pre-service training must help the prospective teacher to examine their values regarding work, job status, success and career identity in the work world.

Recommendation 6: Educators must and should involve themselves in short term industrial internships to experience the realities of the work world. Exchanges between business-industry and the schools could be profitable for both parties. Diversity within educational practice must be encouraged by both parents, school boards, and the business community. Educators must develop an awareness of the varied experiences that influence the child--some positive, others of a negative tone.

Recommendation 7: Publishing companies must provide materials that are not necessarily modeled to fit large adoptions by several states or school systems. A failure to respond to the concerns of teachers will result in an increasing proliferation of locally produced materials. Materials may need to be problem centered for short term use and obsolescence.

Recommendation 8: Considerable research must be undertaken by both school based practitioners and university academicians. The following issues need further study:

a. What impact does the verbal behavior of teachers, parents, and peers exert on the career development of young children?

b. What impact do community variables exert on career selection or aspiration? What is the expected male-female role?

c. Does television present accurate portrayals of the work world to children? What programs are children viewing and what role models are being presented?

d. The effect of male-female career models in the schools needs examination.

e. The effect of race stereotyping as a variable in career choice needs continued study and clarification.

f. What effect does parental expectation and aspiration have on the child's career choice?

Recommendation 9: Schools should adopt a public posture which reinforces the view that learning by doing is as valuable as the development of thinking skills. In addition, the development of affect learning strategies in the classroom is of vital importance if we are to help youth understand the role of feelings in human development.

Recommendation 10: Each school should initiate a textbook advisory committee to examine materials for occupational stereotyping, sex and race biasing, and inaccurate portrayals of American life.

The results of this investigation reaffirm the need for continued updating of reading materials and basal readers. The earlier study by Tennyson and Mannens (1963) and this partial replication indicate that very little has been accomplished to make reading materials accurate in terms of the real world. Boys and girls should be provided reading materials that show them working together and functioning as equals. Career models must move from traditional American stereotypes of "women's place in the work world."

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Appendices

CAREER DEVELOPMENT PROJECT

College of Education

University of Maine at Orono

APPENDIX A

Roe's Scheme for Classification of Occupations

ROE'S SCHEME FOR CLASSIFICATION OF OCCUPATIONS

B. LEVELS (Based on degrees of responsibility, capacity, skill)

1. Professional and Managerial 1

   a. Policy making
   b. Important, independent, varied responsibilities
   c. Education at doctorate level, or equivalent

2. Professional and Managerial 2

   a. Policy interpretation
   b. Medium-level responsibilities, for self and others, with regard to importance and variety
   c. Education at or above bachelor's degree level
   d. Example: mechanical engineer

3. Semi-Professional and Small Business

   a. Application of policy
   b. Low-level responsibility for others
   c. Education: high school plus technical school or equivalent
   d. Example: building contractor

4. Skilled

   Requires apprenticeship or other special training or experience. Requires or allows personal initiative and judgement. Example: toolmaker.

5. Semi-Skilled

   Required some training and experience but markedly less than the level 4 occupations. Much less autonomy and initiative permitted than in level 4. Fairly well-defined work routine. Example: riveter

6. Unskilled

   Requires no special training or education. Need to follow simple directions. Simple, repetitive actions. Little or no independent judgement required. Example: longshoreman.

APPENDIX B

Career Inventory

Form A

NAME _____ GRADE _____

1. Mark the one who has to know the LEAST about MATHEMATICS:

   O 1. pilot (airplane)
   O 2. teacher
   O 3. mailman
   O 4. store clerk

2. Mark the one who spends most of his time with tax records:

   O 1. surveyor
   O 2. biologist
   O 3. architect
   O 4. accountant

3. Mark the one who works closest with an ARCHITECT:

   O 1. mechanic
   O 2. contractor
   O 3. nurse
   O 4. librarian

4. Mark the one who works closest with a CARPENTER:

   O 1. mechanic
   O 2. chemist
   O 3. plumber
   O 4. gardener

5. Mark the one who needs the MOST training:

   O 1. printer
   O 2. sales clerk
   O 3. waitress
   O 4. secretary

6. Mark the one who works closest with a PILOT:

   O 1. architect
   O 2. mechanic
   O 3. plumber
   O 4. accountant

7. Mark the one who is in the field of MEDICINE:

   O 1. teacher
   O 2. nurse
   O 3. hair stylist
   O 4. barber

8. Mark the one who works VERY CLOSELY with WRITERS:

   O 1. mailman
   O 2. teachers
   O 3. stewardess
   O 4. editor

9. Mark the one who is NOT in the field of GOVERNMENT SERVICE

   O 1. politician
   O 2. musician
   O 3. mailman
   O 4. policeman

10. Mark the one who is in the field of TRANSPORTATION:

   O 1. barber
   O 2. farmer
   O 3. actress
   O 4. pilot

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11. A college education is usually needed to be a:

- O 1. mailman
- O 2. lawyer
- O 3. mechanic
- O 4. farmer

12. Army officers usually have at least:

- O 1. a high school diploma
- O 2. two years of high school
- O 3. a college degree
- O 4. a grade school education

13. Which of the following works closest with a TEACHER:

- O 1. lawyer
- O 2. photographer
- O 3. librarian
- O 4. chemist

14. Which of the following works in a laboratory:

- O 1. secretary
- O 2. chemist
- O 3. lawyer
- O 4. barber

15. Which of the following is in the field of SCIENCE:

- O 1. chemist
- O 2. soldier
- O 3. lawyer
- O 4. farmer

16. Which of the following is NOT in the field of MEDICINE:

- O 1. nurse
- O 2. barber
- O 3. veterinarian
- O 4. pharmacist

17. Which of the following works closest with a REPORTER:

- O 1. chemist
- O 2. mechanic
- O 3. pilot
- O 4. editor

18. Which of the following does NOT require special schooling:

- O 1. cab driver
- O 2. nurse
- O 3. computer programmer
- O 4. barber

19. Which of the following works closest with a DOCTOR:

- O 1. chemist
- O 2. nurse
- O 3. lawyer
- O 4. telephone operator

20. Which of the following requires the LEAST training:

- O 1. hair stylist
- O 2. secretary
- O 3. pilot
- O 4. mailman

21. Which of the following is in the field of SCIENCE:

- O 1. chemist
- O 2. soldier
- O 3. lawyer
- O 4. farmer

22. Which of the following is in the field of EDUCATION:

- O 1. doctor
- O 2. pilot
- O 3. teacher
- O 4. chemist

23. Which of the following works closest with an INTERN:

- O 1. pilot
- O 2. fireman
- O 3. carpenter
- O 4. doctor

24. Lawyers usually have at least:

- O 1. a high school diploma
- O 2. two years of high school
- O 3. a college degree
- O 4. a grade school education

1. Mark the one who has to know the LEAST about MATHEMATICS:

2. Mark the one who spends most of his time with tax records;

3. Mark the one who works closest with an ARCHITECT:

4. Mark the one who works closest with a CARPENTER:

5. Mark the one who needs the MOST training:

6. Mark the one who works closest with a PILOT:

7. Mark the one who is in the field of MEDICINE:

8. Mark the one who works VERY CLOSELY with WRITERS:

9. Mark the one who is NOT in the field of GOVERNMENT SERVICE

10. Mark the one who is in the field of TRANSPORTATION:

11. A college education is usually needed to be a:

12. Army officers usually have at least:

13. Which of the following works closest with a TEACHER:

14. Which of the following works in a laboratory:

15. Which of the following is in the field of SCIENCE:

16. Which of the following is NOT in the field of MEDICINE:

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17. Which of the following works closest with a REPORTER:

18. Which of the following does NOT require special schooling:

19. Which of the following works closest with a DOCTOR:

20. Which of the following requires the LEAST training:

21. Which of the following is in the field of SCIENCE:

22. Which of the following is in the field of EDUCATION:

23. Which of the following works closest with an INTERN:

24. Lawyers usually have at least:

NAME _____ GRADE _____

1.
- o 1. pilot (airplane)
- o 2. teacher
- o 3. mailman
- o 4. store clerk

2.
- o 1. surveyor
- o 2. biologist
- o 3. architect
- o 4. accountant

3.
- o 1. mechanic
- o 2. contractor
- o 3. nurse
- o 4. librarian

4.
- o 1. mechanic
- o 2. chemist
- o 3. plumber
- o 4. gardener

5.
- o 1. printer
- o 2. sales clerk
- o 3. waitress
- o 4. secretary

6.
- o 1. architect
- o 2. mechanic
- o 3. plumber
- o 4. accountant

7.
- o 1. teacher
- o 2. nurse
- o 3. hair stylist
- o 4. barber

8.
- o 1. mailman
- o 2. teachers
- o 3. stewardess
- o 4. editor

9.
- o 1. politician
- o 2. musician
- o 3. mailman
- o 4. policeman

10.
- o 1. barber
- o 2. farmer
- o 3. actress
- o 4. pilot

over

11.
- O 1. mailman
- O 2. lawyer
- O 3. mechanic
- O 4. farmer

12.
- O 1. a high school diploma
- O 2. two years of high school
- O 3. a college degree
- O 4. a grade school education

13.
- O 1. lawyer
- O 2. photographer
- O 3. librarian
- O 4. chemist

14.
- O 1. secretary
- O 2. chemist
- O 3. lawyer
- O 4. barber

15.
- O 1. chemist
- O 2. soldier
- O 3. lawyer
- O 4. farmer

16.
- O 1. nurse
- O 2. barber
- O 3. veterinarian
- O 4. pharmacist

17.
- O 1. chemist
- O 2. mechanic
- O 3. pilot
- O 4. editor

18.
- O 1. cab driver
- O 2. nurse
- O 3. computer programmer
- O 4. barber

19.
- O 1. chemist
- O 2. nurse
- O 3. lawyer
- O 4. telephone operator

20.
- O 1. hair stylist
- O 2. secretary
- O 3. pilot
- O 4. mailman

21.

- O 1. chemist
- O 2. soldier
- O 3. lawyer
- O 4. farmer

22.

- O 1. doctor
- O 2. pilot
- O 3. teacher
- O 4. chemist

23.

- O 1. pilot
- O 2. fireman
- O 3. carpenter
- O 4. doctor

24.

- O 1. a high school diploma
- O 2. two years of high school
- O 3. a college degree
- O 4. a grade school education

064

Form C

FORM I

a. Circle the number of five jobs you would like to do.

b. Circle the number of five jobs you would not like to do.

FORM II

a. Circle the numbers of the job a man would do.

b. Circle the numbers of the job a woman would do.

065

Form I and II

NAME_____ GRADE_____

1. Scientist
2. Farmer
3. Postal Worker
4. Telephone Operator
5. Movie Star
6. House Painter
7. Laborer
8. Singer
9. Doctor
10. Equipment Operator
11. News Reporter
12. Service Station Attendant

APPENDIX C

Dictionary of Occupational Titles

Classification Scheme

Dictionary of Occupational Titles

Occupational Classification System

Professional, Technical, and Managerial Occupations

Clerical and Sales Occupations

Service Occupations

Farming, Fishery, Forestry, and Related Occupations

Skilled Occupations

Semi-Skilled Occupations

Unskilled and Miscellaneous

Dictionary of Occupational Titles. 1965, Vol. II, Occupational Classification.

APPENDIX D

Rules for Review

Career Influence Study

Rules For Review

(1) If 50 books or less -- review 20%

(2) If 99 books or less -- review 20%

(3) If 100 books plus -- review 10%

(4) Choose on a random basis - every 7th book until sample completed.

CAREER INFLUENCE STUDY

School_____ Teacher_____ Grade_____ Room_____ Library Size_____ Sample Size_____

TITLE	AUTHOR	DATE	PUB.	PLOT LINE	MAIN CHAR.	OCCUP. SHOWN	ASSOC. DETAILS	SEX	RACE	MAJOR BCKG. CHAR.	SPECIAL NOTES