

1984

## An Annotated Bibliography of Biographies for Career Education - Grades 4-6

Susan P. Polashek  
*University of Northern Iowa*

*Let us know how access to this document benefits you*

Copyright ©1984 Susan P. Polashek

Follow this and additional works at: <https://scholarworks.uni.edu/grp>

---

### Recommended Citation

Polashek, Susan P., "An Annotated Bibliography of Biographies for Career Education - Grades 4-6" (1984).  
*Graduate Research Papers*. 3970.

<https://scholarworks.uni.edu/grp/3970>

This Open Access Graduate Research Paper is brought to you for free and open access by the Student Work at UNI ScholarWorks. It has been accepted for inclusion in Graduate Research Papers by an authorized administrator of UNI ScholarWorks. For more information, please contact [scholarworks@uni.edu](mailto:scholarworks@uni.edu).

**Offensive Materials Statement:** Materials located in UNI ScholarWorks come from a broad range of sources and time periods. Some of these materials may contain offensive stereotypes, ideas, visuals, or language.

---

## An Annotated Bibliography of Biographies for Career Education - Grades 4-6

### Find Additional Related Research in UNI ScholarWorks

To find related research in UNI ScholarWorks, go to the collection of [School Library Studies Graduate Research Papers](#) written by students in the [Division of School Library Studies](#), Department of Curriculum and Instruction, College of Education, at the University of Northern Iowa.

### Abstract

An annotated bibliography of biographies was compiled for the career education program in grades 4-6. An attempt was made to locate four biographies for each of the fifteen job clusters designated by the U.S. Office of Education that would be representative of the spectrum of the world of work. A search was made of the Cedar Falls Public Library, Wauzeka Public Schools IMC, and interlibrary loan for biographies. Representative biographies were found for the job clusters of Agribusiness and Natural Resources, Environment, Communication and Media, Fine Arts and Humanities, Health, Public Services, and Recreation and Hospitality. A limited number of representative biographies were found for the job clusters of Construction, Manufacturing, Marine Science, Marketing and Distribution, and Office. No representative biographies for the job clusters of Consumer Homemaker and Personal Services were found.

AN ANNOTATED BIBLIOGRAPHY  
OF BIOGRAPHIES  
FOR CAREER EDUCATION - GRADES 4-6

A Research Paper  
Presented to the  
Faculty of the Library Science Department

---

In Partial Fulfillment  
of the Requirements for the Degree  
Master of Arts

---

Susan P. Polashek

March 2, 1984

---

Read and approved by  
Mary Lou Mc Grew

*[Signature]*  
Elizabeth Martin

---

Accepted by Department  
Elizabeth Martin

*[Signature]*  
Date April 10, 1984

## Abstract

An annotated bibliography of biographies was compiled for the career education program in grades 4-6. An attempt was made to locate four biographies for each of the fifteen job clusters designated by the U.S. Office of Education that would be representative of the spectrum of the world of work. A search was made of the Cedar Falls Public Library, Wauzeka Public Schools IMC, and interlibrary loan for biographies. Representative biographies were found for the job clusters of Agribusiness and Natural Resources, Environment, Communication and Media, Fine Arts and Humanities, Health, Public Services, and Recreation and Hospitality. A limited number of representative biographies were found for the job clusters of Construction, Manufacturing, Marine Science, Marketing and Distribution, and Office. No representative biographies for the job clusters of Consumer Homemaker and Personal Services were found.

## TABLE OF CONTENTS

Chapter	Page
1. THE PROBLEM . . . . .	1
INTRODUCTION . . . . .	1
STATEMENT OF THE PROBLEM . . . . .	3
HYPOTHESIS . . . . .	3
IMPORTANCE OF THE STUDY . . . . .	3
ASSUMPTIONS . . . . .	4
LIMITATIONS OF THE STUDY . . . . .	4
DEFINITIONS OF TERMS . . . . .	5
2. REVIEW OF THE RELATED LITERATURE . . . . .	6
LITERATURE REVIEW SUMMARY . . . . .	15
3. METHODOLOGY . . . . .	16
4. AN ANNOTATED BIBLIOGRAPHY OF BIOGRAPHIES FOR CAREER EDUCATION - GRADES 4-6 . . . . .	17
5. SUMMARY, CONCLUSIONS, RECOMMENDATIONS . . . . .	33
APPENDIXES	
A. IOWA DEPARTMENT OF PUBLIC INSTRUCTION JOB TITLE RECOMMENDATIONS . . . . .	43
B. CHECKLIST FOR EVALUATING BIOGRAPHIES . . . . .	47

## Chapter 1

### THE PROBLEM

#### Introduction

One goal of education is to prepare an individual to find a place in society and the world. In order to attain this goal, individuals must be able to establish and maintain a life-style unique to their personalities, interests, and abilities.<sup>1</sup> Fundamental to achieving this goal is a career. The school should integrate career education into the K-12 curriculum enabling students to select, prepare for, and enter into a career, thus finding their places in, and becoming contributing members of, society.

Career education represents an attempt to integrate into the existing curriculum a set of sequential experiences designed to develop a positive self-concept and a positive attitude toward the world of work by developing and understanding individual life-styles.<sup>2</sup> Students should be made aware of and have as many opportunities as possible to investigate or prepare for careers which are representative of the entire world of work, which depict the various levels of careers; i.e. skilled, semi-skilled, para-professional and professional,

---

<sup>1</sup>Iowa Department of Public Instruction, Models for Career Education in Iowa, Implementing Career Education in the School Curriculum, 1974, p. 1.

<sup>2</sup>Iowa Department of Public Instruction, Models for Career Education, Kindergarten-Grade 6, 1974, p. 1.

and which apply to all, regardless of sex, ability, or socioeconomic level. By the same token, career education implies that every subject area at every level will reflect the career emphasis.<sup>3</sup>

A healthy attitude toward work in general needs to be developed. Work should be that which is personally satisfying, makes a contribution to society, or for which an individual is particularly suited. Students pick up adult biases and are influenced by them quite readily, especially at the elementary level. Care must be taken to present occupations as being equally attainable by minority groups, by either sex, and by various age levels.<sup>4</sup>

Early in the 1970's, under the direction of U.S. Commissioner of Education, Sidney P. Marland, the U.S. Office of Education created a model for career education.<sup>5</sup> This created a bandwagon effect, and many states including Oregon, Nevada, Ohio, Michigan, Mississippi, Wisconsin, Kansas, Georgia, Alabama, and Louisiana created their own models.<sup>6</sup> These models differ somewhat in form, but do have basic fundamental purposes. All models recognize that career education at every level is relevant to the world of work, the community, and society. All models recognize the need to help students understand more about themselves, the world of work, and how they relate to it. Another basic purpose is that children of all ages, beginning

---

<sup>3</sup>Ralph Ressler, Career Education: The New Frontier (Worthington, Ohio: Charles A. Jones Publishing Co., 1973), p. 123.

<sup>4</sup>Ibid., p. 50.

<sup>5</sup>David L. Jesser, Career Education: A Priority of the Chief State School (Salt Lake City: Olympus, 1976), p. 95.

<sup>6</sup>Ibid., p. 95-117. A discussion by state can be found on these pages.

with kindergarten, have help in choosing a career field that will enable the individual to be a productive, contributing member of society and live a self-rewarding life.<sup>7</sup>

Upon establishing the models for career education and beginning the actual integration of career education into the K-12 curriculum, it would be necessary to establish a collection of materials to support the career curriculum.

### Statement of the Problem

This study was conducted in an attempt to answer the following questions: Are bibliographies available for career education? Can an annotated bibliography of biographies meeting stated criteria be compiled for the career education program in grades 4-6?

### Hypothesis

An annotated bibliography consisting of four individual biographies for each of the fifteen job clusters, each meeting the criteria stated in the methodology and complementing the grades 4-6 career education program, can be developed.

### Importance of the Study

Middle graders continue to find satisfaction in reading of the lives and accomplishments of people in all walks of life.<sup>8</sup>

---

<sup>7</sup>Ibid., p. 94.

<sup>8</sup>Charlotte S. Huck, Children's Literature in the Elementary School, (New York: Holt, Rinehart and Winston, 1976), p. 555.



By reading biographies a student can learn about a wide variety of careers, how experiences of others have affected their career decisions, what contributions these people have made to society, and how people find self-fulfillment through their work. This learning is essential to career education and implies that biography can be used as an instructional tool for career education.

### Assumptions

An assumption of this study is that children can learn from reading.

A second assumption is that the books evaluated will represent appropriate interest and reading levels for children in grades 4-6 because they are found in well-established youth collections.

A third assumption is that the books contained in the youth collections were selected on the basis of a favorable review.

### Limitations of the Study

The titles selected were limited to those available from the Cedar Falls Public Library, the Wauzeka Public Schools IMC, and those available through interlibrary loan. The biographies chosen had a 1970 or newer copyright date and were limited to those which dealt with the story of one person's life. A limited set of criteria were used (stated in the methodology) to justify the inclusion of the biography in the bibliography. The results were limited by the researcher's ability to apply the criteria objectively.

### Definition of Terms

Biography - a history of an individual's life, a life story, or an account of a person's life as described by another.<sup>9</sup>

Career - a lifework, profession, or occupation.<sup>10</sup>

Career education - the total effort of public education and the community to help all individuals become familiar with the values of a work-oriented society, to integrate these values into their lives in such a way that work becomes possible, meaningful, and satisfying to each individual.<sup>11</sup>

Job Cluster - a variety of jobs with a central theme.

---

<sup>9</sup>Webster's New World Dictionary of the American Language-College Edition, (Cleveland: The World Publishing Company, 1964), p. 148.

<sup>10</sup>Ibid., p. 221.

<sup>11</sup>David L. Jessor, Career Education: A Priority of the Chief State School Officers, (Salt Lake City: Olympus, 1976), p. 21.

## Chapter 2

### REVIEW OF THE RELATED LITERATURE

The review of the related literature was conducted in five areas: 1) to discover what reading authorities knew about the influence of reading on child development; 2) to discover what children's literature authorities said about the value of children reading biographies; 3) to study concepts developed in career education as they relate to biography, thus justifying the use of biography as an instructional tool; 4) to examine lists of career education materials in order to see if biographies have been included; and 5) to learn how occupations have been grouped.

Reading satisfies needs in a way which the mediums of television, radio, and movies cannot equal. Reading is the paramount means of exchanging ideas and experiences. Individuals are often stimulated by their reading experiences to learn about the world and to gain an understanding of people and society. Reading can contribute to understanding oneself, others, and the great wide world.<sup>12</sup> David H. Russell also supports this value of reading. He stated,

Do Pasternak or other poets influence us deeply? Do we really have Books That Changed the World, as the optimistic title of one publication suggests? Can a book, story or poem change one person, much less the world? In the words of Ciardi, can it make him "quietly passionate"

---

<sup>12</sup>Miles A. Tinker and Constance M. McCullough, Teaching Elementary Reading, (New York: Appleton-Century-Crofts, 1968), p. 301.

about an idea or a cause? Can a book fill a boy with courage or help him find himself? We recognize a new or an important idea in the actions, characters, or values described. The impact of the material is such that we receive fresh insight into our own or others' lives. In our reading we are changed, a little, as persons.

Reading experts agree that there are fundamental types of growth which are influenced by reading. One is critical thinking and critical judgment, the ability to single out important facts and ideas, finally reaching conclusions. Reading also influences the growth of interests, tastes, and appreciations. Books are sources through which to get acquainted with new things, new ideas, and new experiences that one may not have personally. Social sensitivity is also influenced by reading. A person can be exposed to social experiences which are too complex for one person to understand clearly through his own observation. Reading contributes to the development of basic attitudes, beliefs, and ideals.<sup>14</sup>

Most important to this study is the influence of reading on the growth of an individual's understanding of human behavior. This idea was clearly stated by Hilda Taba, Assistant Professor of Education, University of Chicago, in 1940:

To make this growth they need not only to get acquainted with the varieties of human motivation, problems, and difficulties but also to apply that knowledge to the analysis of their own behavior. Reading, along with other experiences, is a significant source to which pupils can turn for help in interpretation of what is happening to them.<sup>15</sup>

She also added that students can compare their own personal experiences

---

<sup>13</sup>David H. Russell, "Contributions of Reading to Personal Development," Teachers College Record, 61:435-6, May, 1960.

<sup>14</sup>Hilda Taba, Reading and Pupil Development, (Chicago, Illinois: The University of Chicago, October, 1940), p. 11-16.

<sup>15</sup>Ibid., p. 16-17.

with those about which they read, and, as they gain skill in interpreting the experience of others, they gain the ability to see their own experiences objectively.<sup>16</sup>

Pearl Buck said that when people read literature they know themselves better and gain the idea of why they behave as they do. She stated:

Literature contributes to life only the awareness of life itself. If its function is to teach, it is to teach men what they are and help them to understand their own lives by showing them themselves.<sup>17</sup>

Upon discovering the influence of reading in general upon the student, the researcher next wanted to find the influence on children of reading biographies. Biographies benefit children in several ways. They increase a child's understanding of other times and other places. But more important to this study is that they add an important dimension to a child's grasp of reality. Biographies can aid children in their own search for identity - group, sociological, and personal.

Rose Blue felt that reading about others' life-styles is very important for children. She stated,

How people have coped with the problems similar in some way to those of the young reader, can help the children understand their own lives. Reading about many different life-styles is a valuable educational experience. The more you know about the other's life-styles, the better choices you can make about your own.<sup>18</sup>

Charlotte S. Huck said that children want to read stories

---

<sup>16</sup>Ibid., p. 17.

<sup>17</sup>Pearl S. Buck, "Literature and Life," National Education Association Journal, 27:171-6, September, 1938.

<sup>18</sup>Rose Blue, "Biography As Realistic Children's Literature," Teacher, 94:63, January, 1977.

about the lives of real people and something that really happened.

She stated,

Biographies extend the child's opportunity for identification, not only with those who are great today but with those who have lived greatly in the past. In this day of mass conformity, it may give them new models of greatness to emulate or suggest new horizons of endeavor.<sup>19</sup>

Reading biography can influence and stimulate a child in the decision of a career. Human details help us to know that great feats in life are accomplished by human beings and not paragons.<sup>20</sup>

Dennis W. Engels wrote that students may identify with a character in a biography and experience the thoughts, feelings, activities, and problems of another, thus facilitating vocational exploration. He stated,

Perhaps through reading and identifying with persons in novels and biographies, a student could gain vicarious experience by sharing in the reported personal experience of people working in those fields.<sup>21</sup>

Children come to know the character of the subject as it is presented through his actions, deeds, and conversations.<sup>22</sup> Biographies can be useful teaching tools as they provide insight into the character and personality of a person.<sup>23</sup> Gertrude B. Herman felt that eight year olds are ready to begin to read biographies and explore the

---

<sup>19</sup>Huck, loc. cit.

<sup>20</sup>Zena Sutherland and May Hill Arbuthnot, Children and Books, (Glenview, Ill.: Scott, Foresman and Company, 1977), p. 404.

<sup>21</sup>Dennis W. Engels, "A Local Approach to Identifying Biographical Literature for Vocational Exploration," The Vocational Guidance Quarterly, 28:183, December, 1979.

<sup>22</sup>Huck, op. cit., p. 557.

<sup>23</sup>Walter G. Dabrowski, "Character and Personality Profiles in the Classroom," Social Education, 42:532, October, 1978.

lives of others. Fourth, fifth, and sixth grade students are at the cognitive level where they can gain self-awareness by reading biography. She stated,

It is in investigating, in sifting and winnowing facts and ideas, in empathizing with the deeds and sufferings of others that growth is helped along - intellectual, emotional, and spiritual growth. It is through this integrative function that biography and autobiography, honestly presented with literary and artistic merit, can make important contributions to self-integration and social realization. The testimony of many individuals over many years supports a conviction that young people have much to gain from reading about real human beings in all their complexity, with all their sometimes troubled lives.<sup>24</sup>

Having thoroughly pursued the relationship between reading about others' lives and the development of an individual's personality, the researcher next sought the goals of career education, hoping to find similar concepts.

Almost every career education program lists the concepts to be developed. Specific level goals have emerged from the previously mentioned models and are generally followed in career education programs. These goals are developed concurrently within each level. The goals become progressively more complex with each increased grade level. Children in grades kindergarten, one, two, and three are considered to be in the Awareness Stage. This stage lays the groundwork for career concepts which are further developed in a later stage.

1. The first goal in this stage is awareness of self.

The child gathers impressions from his activities and interpersonal relationships to develop a self-concept and a differentiation of

---

<sup>24</sup>Gertrude B. Herman, "'Footprints on the Sands of Time': Biography for Children," Children's Literature in Education, 9:88-89, Summer, 1978.

his self from others.

2. The second goal is awareness of different types of occupational roles. A child often has trouble distinguishing between different types of work; work is just work. He needs help distinguishing between jobs.

3. A third goal is awareness of individual responsibility for his own actions. This provides a basis for the child's understanding that he is responsible for his own actions and that he controls his actions by choosing from available alternatives.

4. The fourth goal is the development of the rudiments of classification and the decision-making skills. If a child is able to categorize, he will be better able to understand the concept of occupational groups. With decision-making skills the individual will develop the skills to choose among alternatives.

5. The fifth goal is learning cooperative social behavior. It is essential that the individual be able to develop effective working relationships with peers.

6. The sixth goal of this stage is the development of respect for others and the work that they do. Children normally do possess work attitudes and the emphasis in this goal is preserving positive attitudes so that they can be a foundation for later attitudes.<sup>25</sup>

Children in grades four, five, and six are in the Accommodation Stage. Changes in cognitive development take place at this time.

1. The first specific goal of this stage is the development of concepts related to self. Students will better be able to understand

---

<sup>25</sup>Larry J. Bailey and Ronald Stadt, Career Education-New Approaches to Human Development (Bloomington, Illinois: McKnight Publishing Co., 1973), p. 351-356.



themselves, the activities in which they are interested, their abilities to participate in those activities, the value of the activities, and be able to make more accurate career choices later.

2. The second goal is the development of concepts related to the world of work. The emphasis is on learning what the world of work is, how it evolved, why occupations exist, what is work, and why people pursue various types of work activities.

3. The third goal is assuming increased responsibility for planning one's time. Greater independence and greater authority to make decisions for oneself are now emphasized.

4. The fourth goal is the application of decision-making and classification skills. Coping with change, developing behaviors, and making decisions which will provide them with the greatest potential for occupational fulfillment are stressed.

5. The fifth goal is the development of desirable social relationships. The more an individual understands himself the better he can communicate and cooperate with others.

6. The final goal in the stage is the development of work attitudes and values. If the value of work is not understood, it is difficult for the individual to achieve self-motivation to work.<sup>26</sup>

The same goals for grades K-6 are repeated for grades 7-12. The seventh and eighth grades are in the Orientation Stage. During this stage the student will formulate a career hypothesis, initiate a plan for a career, become familiar with career data, develop more mature social relationships, and appreciate the value of work.

---

<sup>26</sup>Ibid., p. 356-359.

Ninth through twelfth grades are in the Exploration and Preparation Stage. The student is expected to make an occupational choice and begin specialized education or a job upon leaving school.<sup>27</sup>

Upon studying the previously mentioned stages and goals, this researcher chose four concepts which justify the use of biographies as instructional tools.

1. The understanding and acceptance of self-interests, abilities, attitudes, and values is important through life. This concept has been stated very similarly as a goal for career education in grades 4-6 and also at other levels.
2. Occupations and life-styles are interrelated.
3. Education and experiences influence the choice of careers.
4. Careers are unique to environmental location, climate, and need. Some people's lives are definitely influenced by these factors, the breadth of their knowledge of the various careers, the specific types of work that need to be done in specific climates, and job availability in the location in which a person lives.<sup>27</sup>

Having found the use of biographies as an instructional tool justifiable, this researcher wanted to see if they have been used by others. Over thirty sources which included bibliographies of materials for career education were examined to determine if biographies were included. A great deal of innovative and interesting multi-media material is available. Much of the material is oriented to specific jobs and is the type which presents factual information

---

<sup>27</sup>Ibid., p. 362-365, 370-373.

<sup>28</sup>Research and Development Project in Career Education, Curriculum Resource Guide, Volume II - Grades 5-8, ERIC Document ED 103 135, 1974.

about each. Only five of the bibliographies contained material which appeared to be biographical. They are:

1. Bibliography on Career Education. ERIC Document Ed 114 506, 1973. Included in this materials list was: Biography Learning Program. Noble and Noble, 1968. Contains seventeen titles which are inspiring biographies from a wide spectrum of American life: inventors, reporters, immigrants, teachers, scientists, nurses, politicians, and doctors.
2. Billings, Mary Dewitt and Janet S. Rubin. Dealing in Futures: Career Education Materials for Students, Parents, and Educators. Educational Materials Center. ERIC Document ED 141 573, 1977. Included eight biographies.
3. PCE/K-10 Resource Supplement - Grades K-6, ERIC Document ED 110 770. Included is a list of children's books, several that were biographies.
4. Sive, Mary Robinson. "New Media Materials for Career Education." Curriculum Review, 17:95-114, May, 1978. Contains one autobiography on news reporting.
5. Teacher Guide to Increasing the Career Awareness of Elementary Children Grades 4-6. Rev. ed. - ERIC Document ED 114 467, 1972. This contains excellent career units in each curricular area and does list some titles which appear to be biographies.

From these sources, it is apparent that biographies have not been used much as instructional tools. The fact that five sources included biographies indicated that their use is possible. The bibliography that this researcher proposed is innovative and, therefore, would make a worthwhile and useful contribution to career education curriculums.

The final phase of the literature review was to learn how occupations have been grouped. Most career education programs use the fifteen U.S. Office of Education Occupational Clusters. They are: Agribusiness and Natural Resources, Communication and Media, Construction, Consumer and Homemaker, Environment, Fine Arts and Humanities, Health, Manufacturing, Marine Science, Marketing and

Distribution, Office, Personal Services, Public Services, Recreation and Hospitality, and Transportation. For examples of the types of careers which might be classified into each cluster, see Appendix A.

### Literature Review Summary

Through reading, one can learn of the lives and experiences of others. After reading a specific biography, one can see how the experiences, actions, and interests of one person are reflected in the career choice and life-style of that individual. The goals of career education and the concepts developed from those goals justify using biographies as instructional tools in a career education program.

### Chapter 3

#### METHODOLOGY

For each of the fifteen job clusters, four individual biographies were sought. Using the Iowa Department of Public Instruction Job title recommendations (see Appendix A), books were selected to represent a few of the possible job titles which can be classified in each cluster. The materials for this bibliography were limited to those housed in the Youth Department of the Cedar Falls Public Library, the Wauzeka Public Schools IMC, and those available through interlibrary loan.

A book was included only if it met all of the following criteria: 1) The book dealt with at least one specific career. 2) A relationship was shown between the career and the individual's abilities, interests, and values. 3) A relationship was shown between the individual's education, experiences, and life-style and the choice of a career. 4) The individual's contribution to society was apparent. 5) The individual was satisfied with the career choice. 6) The book was free from stereotypes. Whether a book met these criteria or not was the judgment of the researcher.

After each book was read in full, a checklist was used as a guide to evaluation (see Appendix B), justifying the inclusion of the biography in the bibliography. From the information on each checklist, an annotation was written in narrative form. The annotations are arranged alphabetically within each job cluster and have become the annotated bibliography of the research paper (Chapter 4).

## Chapter 4

### AN ANNOTATED BIBLIOGRAPHY OF BIOGRAPHIES FOR CAREER EDUCATION - GRADES 4-6

#### Agribusiness and Natural Resources

Carlson, Vada F. John Charles Fremont, Adventurer in the Wilderness. Irving-on-Hudson, N.Y.: Harvey House, Inc., 1973. 175 p.

John Charles Fremont's father told him fascinating stories of the wilderness, but he died when John was six years old. John loved the outdoors and secretly dreamed of joining a westbound caravan. During his school years he was a gifted student, especially in mathematics, and at fourteen entered college as a junior. He was expelled before graduation for lack of respect for authority. Next he tutored to earn money but did not like being indoors. He enjoyed his next job as a surveyor because he could spend so much time outdoors. The Navy offered him a position as professor of mathematics, but he rejected it and became a map maker for the U.S. Topographical Engineers' Corps and at this time was awarded an honorary college degree. John was greatly influenced by Henry R. Schoolcraft's book Expedition to the Upper Mississippi and spent the remainder of his life on expeditions to the west. Known as the Pathfinder, he opened the way for settlers.

Dunham, Montrew. John Muir, Young Naturalist. Indianapolis: Bobbs-Merrill Co., Inc., 1975. 200 p.

John Muir was born in Scotland. His family came to America and settled in Wisconsin. He enjoyed nature, being outside during storms, and was very adventuresome and brave, never afraid to explore dangerous spots alone. He attended the University of Wisconsin at Madison where he studied geology and developed an interest in many aspects of nature. Glaciers were his main interest and he developed a theory of how glaciers had formed valleys. He was interested in the conservation of natural resources and was greatly alarmed by the damage done to forests by lumbering companies. He wrote numerous articles about his travels and preserving natural resources. He influenced the establishment of the National Park System in 1872. He was particularly interested in Yosemite National Park, which was established in 1890.

Quackenbush, Robert. Here a Plant, There a Plant, Everywhere a Plant, Plant! Englewood Cliffs: Prentice Hall, 1982. 35 p.

Luther Burbank, horticulturist, grew up on a farm under the influence of his mother who had an unusual talent for making things grow in her wonderful garden. In fact, one of his favorite playthings was a cactus plant. At the age of 21 he bought land. He began to use his creative ideas in crossbreeding plants and experimenting with plant grafting. He happily did so throughout his life and, at one time, published a catalog of his creations.

Shapiro, Irvin. Darwin and the Enchanted Isles. New York: Coward, McCann and Geoghegan, Inc., 1977. 78 p.

Charles Robert Darwin was interested in the outside world, reading, doing chemistry experiments, and most of all, collecting things. He never did well in school, but his father insisted that he have a respectable career. He first sent him to medical school and then divinity school (which he completed). At Cambridge University, he was influenced by two science professors from whom he learned how to study the items he collected. He was recommended to be a naturalist aboard the Beagle, which turned out to be a five year world expedition. Darwin explored and collected, sending crates of specimens back to Europe. By studying life all over the world, especially the Galapagos, he formulated his theory of evolution. Because of his health, he could never travel again, so he spent his days formulating, studying and writing. Because of the religious thought of the times, he delayed his publications until late in life.

### Communication and Media

Harman, Terry. Gordon Parks, Black Photographer and Filmmaker. Champlain: Garrard Publishing Co., 1972. 96 p.

Gordon Park's mother on her death bed gave him advice about life. She told him, "Put something into it and you'll get something out." This he felt was necessary throughout his life, especially for a black boy. Gordon was sent to his sister's in the North when his mother died. He was soon asked to leave, penniless and homeless. To survive he found work playing piano, which he could do by ear, and waiting tables. He became very concerned about finding what his talents were. He tried all the arts and ended up with a nervous breakdown. At one point in his life he saw a magazine and newsreel and was affected by the realism it could bring. Thus, he decided to become a photographer and proceeded to buy his first camera. He used the camera

to praise the beautiful and fight the evils of poverty. Gordon filmed documentaries about black ghetto life for National Education Television, wrote several books of poetry, and composed six musical works. Gordon called the use of all his talents the "supreme happiness." In his movie "The Learning Tree" (Warner, 1969), he wrote the script, composed the musical score, and directed both the camera work and action.

Jahns, Patricia. Joseph Henry, Father of American Electronics. Englewood Cliffs, New Jersey: Prentice Hall, Inc., 1970. 143 p.

Joseph Henry did not attend school until he was sixteen years old. At that age he first saw a book, which gave him a thirst for knowledge, and he earned his high school diploma in seven months. At a younger age, he worked for a theater from which he gained some knowledge of public speaking, which he found useful in his adult years. After graduation he continued studying and inventing. He became renowned for the invention of the electromagnet and electrical relays and was able to see other inventions of the telephone and telegraph, as the result of his inventions. Joseph organized the Smithsonian Institute and became a friend of Abraham Lincoln.

Myers, Elisabeth P. David Sarnoff, Radio and TV Boy. Indianapolis: Bobbs-Merrill Co., Inc., 1972. 200 p.

David Sarnoff came to the United States from Russia where he was learning to be a rabbi. Being hard working and intelligent helped him when he had to support his family because of his father's illness. He began by selling newspapers, and then found a job as a messenger for Commercial Cable Company, where he learned Morse Code. Next he got a job as a wireless operator with Marconi Wireless Telegraph Co. Being able to learn quickly, having a creative mind and many creative ideas, and studying electrical engineering, enabled him to move up in the company. He became president of RCA which later became NBC. He visualized radios and television for homes, and these are in most homes today.

Myers, Hortense. Joseph Pulitzer, Boy Journalist. Indianapolis: Bobbs-Merrill Co., Inc., 1975. 200 p.

Joseph Pulitzer was born in a small town in Hungary where he worked in his father's grain store. When he moved to the city he was appalled by the way the soldiers of Austria treated the people and their lack of political freedom. He studied languages and then came to the United States because he had heard about freedom in America. He was a good horseback rider, and obtained a position in the calvary during the Civil War because he wanted to help the slaves



gain freedom. By studying at the library, he was able to learn about the world, United States government, and the English language. He promoted political freedom and the exposure of the truth in his writings. Joseph established the School of Journalism at Columbia University, created the Pulitzer Prize Organization, and owned and published the New York Newspaper.

### Construction

Henry, Joanne Landers. Robert Fulton, Steamboat Builder. Champaign: Garrard Publishing Co., 1975. 80 p.

Robert Fulton was very inventive, mechanical, and artistic. Schoolwork bored him as he had so many other things to occupy his thoughts. As a youngster he designed and invented the pencil and fireworks among others. He learned skills from a gunsmith and silversmith which he used to invent things. Thinking he should become an artist, he studied under Benjamin West, who told him he would never be really good. At various times he used his art ability to raise money by painting portraits. He designed canals, a submarine, and a torpedo, and built the first successful steamboat, the Clermont, in 1807.

Orrmont, Arthur. James Buchanan Eads, The Man Who Mastered the Mississippi. Englewood Cliffs: Prentice-Hall, Inc., 1970. 143 p.

James Buchanan Eads had no formal education, but taught himself by reading books in the library. When he moved to St. Louis by boat, he fell in love with the Mississippi River. The remainder of his life was spent on the river, using his engineering skills to make the river more navigable, and to build the first bridge over the river.

Quackenbush, Robert. What Has Wild Tom Done Now?!!! Englewood Cliffs: Prentice Hall, Inc., 1981.

Thomas A. Edison was curious about everything and was always busy experimenting. He only spent three months in school because the teacher felt Tom should not be in school because he did not obey. His mother, a former teacher, educated him. At twelve years old, Tom began his first job as a newsboy on a train. He spent his free time reading in the library and doing experiments in one of the train cars (until one caught fire and he lost his job). By the age of fifteen, he owned a newspaper store, vegetable store, and printed his own paper. At sixteen, he traveled around the country, working as a telegraph operator. His experimenting caused him to lose most jobs. In his lifetime he invented

1,093 items including the light bulb in 1879, phonograph, and motion pictures, and he established Menlo Park and West Orange Industrial Research Laboratories.

## Environment

Chappel, Carl L. Virgil I. Grissom, Boy Astronaut. Indianapolis: Bobbs-Merrill Co., Inc., 1971. 200 p.

Virgil I. Grissom was small for his age but this did not hinder him from keeping up with older and larger boys. He made airplane models at a young age, and was interested in reading books about scientific progress and the technology of building and flying airplanes. His parents made sure he had many educational experiences. At the age of six, Virgil took his first airplane ride and, from then on, determined to become a pilot. When he enlisted in the Air Force, he found he could not become a pilot until he had a college education. He went to Purdue University and majored in engineering. Upon graduation he reenlisted in the Air Force, later becoming an astronaut.

Coerr, Eleanor. Jane Goodall. New York: G.P. Putnam's Sons, 1976. 61 p.

Jane Goodall was always interested in animals and wrote down what she discovered about them. She liked Rudyard Kipling's animal tales, Tarzan adventures and dreamed about the faraway lands and animals in the stories. She hated school because it kept her indoors, but her mother explained that she could only go to Africa and study animals if she got good grades and became a scientist. After high school there was no money for college. She went to business school and obtained a job as a secretary. A friend wrote her to come to Kenya. She got a job in a museum where she learned about anthropology and paleontology from her employers. She wanted to study chimpanzees, and eventually received a grant from the National Geographic Society to do so. She actually lived with the chimpanzees to learn about their behavior, so as to learn about our ancestry. She stopped her studies briefly to travel to Cambridge University to earn her PhD.

Epstein, Sam and Beryl Epstein. Secret in a Sealed Bottle, Lazzaro Spallanzani's Work with Microbes. New York: Coward, McCann and Geoghegan, Inc., 1979. 63 p.

Lazzaro Spallanzani was well educated. Although his father wanted him to become a lawyer, probably because of his ability to speak and argue, Lazzaro became interested in natural history. He became a professor of natural history and also a priest. He questioned nature and the findings

of other scientists, conducting controlled experiments. His study of microbes disproved the theory of spontaneous generation (a theory that low forms of life came into being from nonliving material), and he was able to discuss and argue his own viewpoints. The experiments laid the groundwork for the studies of future scientists.

Patterson, Lillie. Benjamin Banneker, Genius of Early America. Nashville: Parthenon Press, 1978. 142 p.

Benjamin Banneker's grandmother taught him to read the Bible, and his father taught him the basics of farming. He attended school from ages eleven to fifteen, and he studied the rest of his life. Benjamin managed the family farm, and in the evenings and winter, spent long hours on projects. Valuing a neat appearance, he proved his abilities, and became a respected man. Mathematics was his love, and he was able to do difficult calculations without a calculator. At the age of sixty, he was introduced to astronomy. He sold the farm, and devoted his life to charting the skies. An almanac was published yearly from 1791-1869, containing only his original astronomical and tide tables. He participated in the surveying of Washington, D.C., constructed the first American made clock, and was one of the first blacks to speak out against slavery.

### Fine Arts and Humanities

Barth, Edna. I'm Nobody! Who Are You? The Story of Emily Dickinson. New York: Seabury Press, 1971. 128 p.

Emily Dickinson did not want to leave home to attend school, but her father demanded that she do so. She became well educated. Many of the ideas for her writings were based on her experiences. Emily was able to see, notice, and appreciate the common things in life, like weather, nature, and season. She was unable to accept the limited religious thought of the time since she was always interested in new ideas. Choosing to live in solitude in her parents' house, Emily corresponded with scholars and writers. She learned from them, but never was able to find anyone who felt her poetry was of good quality. Nevertheless, she was always satisfied with her work. Books of her poetry were published after her death in 1886.

Hurd, Michael. Mendelssohn. New York: Thomas J. Crowell Co., 1970. 87 p.

Jacob Ludwig Felix Mendelssohn's family had a tremendous influence on his personality and career. His father felt that the gifted man had a duty to strive for perfection.

He had private tutors, studied hard, and took lessons in piano, violin, voice, and theory. His theory teacher recognized him as a genius and challenged him. His family gave elaborate musical concerts on Sundays. All the 'greats' attended, and the children gave recitals. Striving for perfection and rewriting phrases, Mendelssohn composed numerous compositions. He also conducted many concerts and founded Leipzig Conservatory, where he taught piano and composition. He became wildly adored and famous, but died in 1847 at the age of 38.

Krishef, Robert. Jimmie Rodgers. Minneapolis: Lerner Publications Co., 1978. 63 p.

Jimmie Rodgers wanted to be a railroader like his father. He traveled with his father as a boy, so he had no formal schooling or training. He picked up the "blues" from the blacks he worked with, and later created "white man's blues." Singing was his hobby and recreational activity until he came down with tuberculosis. It became his career, then, because he needed a job. He finally got a break in the recording industry and became a hit. During his short career (he died at age 35), he recorded one hundred and eleven songs, sold twenty million records, and was named "father of country music."

Montgomery, Elizabeth Rider. Walt Disney, Master of Make-Believe. Champaign: Garrard Publishing Co., 1971. 96 p.

Walt Disney had to work from the age of ten to help his father financially. He delivered papers until his father allowed him to attend Kansas City Art Institute. He held several short jobs and formed a partnership which soon dissolved. Being hard working and working long hours, Walt used his imagination and creative ability to envision cartoon characters and to develop animation. He created Walt Disney Productions, many of the familiar Disney television shows and movies, and Disneyland, which opened in 1955.

## Health

Collins, David R. Linda Richards, First American Trained Nurse. Champaign: Garrard Publishing Co., 1973. 80 p.

Linda Richards' father died and her mother soon became ill. Linda nursed her until she died and then lived with her grandparents. There she set up a pet hospital on the farm. At the age of 13, she began riding with a doctor. From those rides, she gained a great deal of knowledge about medicine. Her grandfather sent her to school to become a teacher, which she did, but she found it not for her. Being sympathetic toward others, Linda wanted to help doctors,

but this was not accepted at the time and there were no nursing schools. When a nursing program was started by several women doctors, she began her career. Liking challenges, Linda accepted offers to supervise new nursing programs, and she also founded several nursing schools.

Epstein, Sam. Dr. Beaumont and the Man with the Hole in His Stomach. New York: Coward, McCann and Geoghegan, Inc., 1978. 57 p.

William Beaumont, most of all, wanted to be famous. His father was a farmer, and he knew he could never become famous farming. William became a doctor's apprentice and eventually opened his own practice. He found being a family practitioner boring and unsatisfying, so he joined the Army. This enabled him to become an Army surgeon and to do research. He studied the digestive system through a hole in a man's stomach (a gunshot wound), and made important discoveries for the world of medicine, thus becoming famous.

Montgomery, Elizabeth Rider. Albert Schweitzer, Great Humanitarian. Champaign: Garrard Publishing Co., 1971. 144 p.

Albert Schweitzer valued life as a child and could not stand to hurt or kill anything. His father was a preacher who spoke both French and German, and Albert liked to listen to the sermons about missionaries. At age ten, he left home to live with relatives in order to further his education. He began piano and organ lessons and gave organ recitals throughout his life to earn money for his projects. After earning graduate degrees in philosophy, music, and theology, he read an article about a doctor missionary in Africa, which spurred him into medical school. At the age of twenty-one, he decided to live for himself until age thirty, and then to live for mankind in order to repay his debt. He established a hospital in the jungle, working long hours helping sick people, and enduring the climate. Albert used his talents of speaking, preaching, and music to raise money for the hospital. In 1952, he was awarded the Nobel Prize for Humanities.

Veglahn, Nancy. The Mysterious Rays. New York: Coward, McCann, and Geoghegan, Inc., 1977. 63 p.

Marie Curie became interested in science as a youngster, when her mother died of tuberculosis. As she grew older, she was interested in mathematics, physics, and chemistry. Marie was intelligent, could speak five languages, and was totally absorbed in her laboratory, working long hours and constantly thinking about her experiments. While working on her doctorate at the Sorbonne in Paris, she and her husband worked at finding a pure sample of radium in pitchblende. He was awarded two Nobel Prizes in 1903 and 1911, for the discovery of radium. She and her husband both showed evidence

of radiation, i.e. tiredness, skin problems, etc. Marie died of radiation sickness.

### Marketing and Distribution

Fabe, Maxine. Beauty Millionaire, The Life of Helena Rubinstein. New York: Thomas Y. Crowell Co., 1972. 178 p.

Helena Rubinstein grew in Cracow, Poland, and she hated being poor. Her mother encouraged her daughters to be elegantly dressed, well groomed, cultured, cultivated, and marriageable. An actress friend of her mother's introduced her to some cold cream, which she used daily. After school she worked in the home to help her mother and, when older, she helped her father with his bookkeeping. Helena's father sent her to medical school. She tried but did not like the ugliness of medicine; she liked beautiful things. Next she moved to Australia, took a job in a pharmacy, and began selling her cream, which she ordered from a chemist in Cracow. This began the building of her empire. She was hard working, business minded, and wanted control over her own life. Helena established businesses in all parts of the world, while developing and improving her products. Her marriages were unsuccessful because she always put work first. She became lavishly rich, purchasing, among other things, homes, jewels, designer clothes, and African masks.

Gordy, Berry, Sr. Moving Up, Pop Gordy Tells His Story. New York: Harper and Row, 1979. 144 p.

Pop Gordy narrates the story of his life. Much insight is given into the struggle of a black person for the financial security for the family. He operated a plantation, then decided to move to Detroit to build a new life. First he tried plastering, and then established a grocery store, earning the respect of whites.

Hudson, Wilma, J. J.C. Penney, Golden Rule Boy. Indianapolis: Bobbs-Merrill Co., Inc., 1972. 200 p.

When J.C. Penney was eight years old, his father told him he must earn all the money for his clothes. He thought up various jobs and earned money before and after school, doing jobs like picking up nails, yardwork, raising pigs, and farm work. His father arranged for a job in a store just before he died. This began J.C.'s career. Influenced by his father's ministry, he valued honesty, courtesy, service, and cooperation, and expected those values in all of his employees. Later in life, he was tutored in the arts, music, philosophy, etc., to make up for the education he missed during his hard working childhood. He established the J.C.

Penney chain of stores (formerly called Golden Rule Stores), purchased farms in order to study animal husbandry, and participated in philanthropic projects, such as, the Penney Retirement Home for religious workers, and supported the Christian Herald.

## Manufacturing

Fritz, Jean. What's the Big Idea, Ben Franklin? New York: Coward, McCann and Geoghegan, Inc., 1976. 48 p.

Ben Franklin's father made sure he had an education at a young age. At age ten, he began working in his father's soap and candle business. Then he was apprenticed to his brother's printing business. In both, he felt bored and trapped. He valued learning, and spent every spare minute reading, writing, observing, and inventing. Finally, he ran away from his brother to Philadelphia, where he began his own printing business. Ben participated in many diverse activities during his lifetime, including, printing his own newspaper, running a store, forming the first circulating library in America, inventing many things (Franklin stove, lightening rod), and printing Poor Richard's Almanack. He was also the Ambassador to England for eighteen years, and participated in the writing of the Declaration of Independence and the Constitution.

Quackenbush, Robert. Along Came the Model T! How Henry Ford Put the World on Wheels. New York: Parents Magazine Press, 1978. unp.

Henry Ford was born on a farm but was not interested in farming. His parents built him a work bench because he liked to do anything mechanical, fixing, building, and repairing. At twelve years of age, his father took him to Detroit aboard a steam engine. Henry had never seen a self-powered engine, and he dreamed of building a horseless carriage. Upon high school graduation, he became a machine apprentice, and later obtained a job as a steam road engine repairman. Henry built his first car in 1896, then a race car, and won a race. He formed the Ford Motor Company and built the first lightweight, inexpensive automobile. He also invented the process of assembly line production, and improved the working conditions of his employees.

## Marine Science

Latham, Jean Lee. Rachel Carson, Who Loved the Sea. Champaign: Garrard Publishing Co., 1973. 80 p.

Rachel Carson grew up on fifty acres of woodland and spent all the time she could outside, being interested in birds, nature, and the ocean. She worked hard in school to earn good grades, so that she could later earn scholarships to college. She hated science in high school and went to college to become a writer, where she was influenced by her biology instructor. She changed her major and graduated magna cum laude. Rachel never married, but raised her dead sister's family and was able to continue her job and writing. She was the first woman scientist employed by the U.S. Bureau of Fisheries. Rachel used her writing ability to publish articles about fish and the sea. She wrote Silent Spring (c. 1962), which has become a well known source on environmental pollution.

McGovern, Ann. Shark Lady. New York: Four Winds Press, 1978. 83 p.

Eugenie Clark became interested in fish at the age of nine when her mother left her at the Aquarium on Saturdays while she worked. This began her lifelong interest in studying and analyzing the habits of fish. As a child, she also acquired a large collection of tropical fish. Upon college graduation, she worked as a research assistant with another ichthyologist, worked at the Museum of Natural History, traveled to the South Sea Islands to study, and earned her doctorate. She then opened a marine laboratory in Florida, later becoming a professor of zoology. She was able to easily combine motherhood (four children) with her career.

Westman, Paul. Jacques Cousteau, Free Flight Undersea. Minneapolis: Dillon Press, Inc., 1980. 47 p.

Jacques Cousteau traveled a lot with his family, spending summers by the ocean which he enjoyed. He saved his money and bought a movie camera. After college, Jacques went to the French Naval Academy, where he had some training aboard a ship and went on a year long cruise. In a car accident, he injured both arms, and then spent part of each day in the ocean exercising them. Purchasing a ship of his own, the Calypso, Jacques traveled the world's waters. He revolutionized undersea exploration by inventing and perfecting the aqualung and the diving saucer. Through photography, he has been able to focus the world's attention on the beauty of ocean life and the need to conserve that life.



Office

Halacy, Dan. Charles Babbage, Father of the Computer. New York: Crowell-Collier Press, 1970. 165 p.

Charles Babbage was fond of toys as a baby. Instead of playing with them, he was concerned with how they were made and often broke them open. His mother took him to many exhibits of machinery. He was intrigued by one exhibit of two silver dolls that moved like robots. His early awareness of numbers came from visits to his father's bank, but his mathematical ability was inborn. He was a sickly child, his formal education suffered, but he occupied his mind in order to be rid of his aches and pains with thinking and reading, particularly the classics and mathematical books. A tutor was hired, and finally he could enter Cambridge University. In college, he organized the Analytical Society for the cultivation of mathematics, and had many other interests - the supernatural, games, sailing, and chemistry. The Analytical Society studied tables which Charles dreamed could be printed by steam. Charles married, wrote papers on and studied calculus, collected early calculators, and in the 1830's, formulated his idea for a self-acting calculating machine - a computing machine - the Analytical Engine.

Myers, Elisabeth P. John D. Rockefeller, Boy Financier. Indianapolis: Bobbs-Merrill Co., Inc., 1973. 200 p.

John D. Rockefeller's father spent most of his time away from home selling medicines. His mother had to be frugal between his visits. At the age of five, John got a job picking stones out of a garden in order to help his mother with the expenses. He began raising turkeys and saving money at seven. From this he learned the relationship between work and earning and saving. His mother made sure he had a good education, enjoyed reading, and attended church regularly. After attending business school, he founded, in 1870, the business which became the huge Standard Oil Company. His philanthropic activities included contributions to the University of Chicago and the establishment of the Rockefeller Foundation to carry on research to combat disease, promote public education and welfare, and improve the quality of human life.

Quackenbush, Robert. Ahoy! Ahoy! Are You There? Englewood Cliffs: Prentice-Hall, Inc., 1981. 36 p.

Alexander Graham Bell had an inventive and inquisitive mind. His father and grandfather were speech teachers. His grandfather was also an actor, from whom he inherited a flair for the dramatic. Alexander was very interested in his father's charts of Visible Speech that showed how speech is made in a person's mouth. After school hours, he would study the human ear and did speech experiments.

He studied every ear and voice box he could find, even making his dog imitate human speech. He experimented with tuning forks to learn more about sending the human voice by wire. During the day he taught deaf children, so he could only work in the evening on the talking machine. After he invented the telephone, established the Bell Telephone Company in 1877 and founded the Volta Bureau to study deafness, he was able to spend the rest of his life (41 years more) doing what he pleased - experimenting.

### Public Services

Barton, Thomas Frank. Lyndon B. Johnson, Young Texan. Indianapolis: Bobbs-Merrill Co., Inc., 1973. 200 p.

Lyndon Johnson's father was a politician. Lyndon was always interested in his father's activities and often listened to his speeches. He was very interested in politics and government. As a youngster, he worked shining shoes and enjoyed listening to the customers discuss world affairs. In college, he was a leader and a good debator. He chose to teach speech and debate, but at the age of 29, decided to begin a political career. He was a member of Congress, Vice-President, and President of the United States of America in 1963.

Blassingame, Wyatt. William F. Halsey, Five Star Admiral. Champaign: Garrard Publishing Co., 1970. 112 p.

William Halsey was the son of a naval officer. He visited warships with his father, learned about them, and always wanted to be in the Navy. After attending the Naval Academy, his natural ability to command ships was realized. At the age of fifty one, he entered flight school and learned more about the aircraft on his ships. He brilliantly commanded many battles in World War II and earned the rank of Five Star Admiral.

Fleming, Alice. Alice Freeman Palmer, Pioneer College President. Englewood Cliffs: Prentice-Hall, Inc., 1970. 143 p.

To Alice Palmer, school was always important, as was her family. When times were tight, she helped her brother through medical school. She was able to attend college at the age of fifteen, in times when men usually only were able to attend. Alice turned down many marriage proposals so that she might continue to further her education. She was a pioneer in women's education and became president of Wellesley College. Only after reaching the top did she marry. Her husband and she spent their remaining years traveling, lecturing, and attending meetings.

Mason, Miriam E. Dan Beard, Boy Scout. Indianapolis: Bobbs-Merrill Co., Inc., 1972. 200 p.

Dan Beard spent all his spare time in the woods and was lucky enough to have friends who enjoyed the same activities. Being resourceful, he was able to teach himself survival skills, camping skills, and about nature. He had high values which became the Boy Scout Law when he organized the Boy Scouts of America.

### Recreation and Hospitality

Cross, Helen Reeder. The Real Tom Thumb. New York: Four Winds Press, 1980. 92 p.

Charles Sherwood Stratton was discovered by P.T. Barnum when he was only five years old. Being able to memorize songs and dances, he was able to entertain audiences, which he loved, and gained fame. P.T. Barnum taught him all the acts, hired tutors to educate him, taught him polished manners, and, generally, acted as a parent would. Tom Thumb (his stage name) lived a rich life-style, married another midget with whom he performed, and built his dreamhouse, a miniature home with lavish furnishings.

Owens, Jessie and Paul G. Neimark. The Jessie Owens Story. New York: G.P. Putnam's Sons, 1970. 109 p.

Jessie Owens grew up in poverty. Once his mother had to cut open a bump on his leg to cure it, and he learned the real meaning of pain. Later in life, he was able to endure the pain necessary to run. His father was a champion runner and an expert on leg exercises, which he did with Jessie. Sunday afternoons were spent running the flatlands. Due to lack of nutrition, Jessie was a sickly child, so his father decided to move the family to Cleveland and find better work. Jessie worked three jobs after school and, when he was in fourth grade, the athletic coach asked him to practice running. He ran better and faster. In high school he tied the world record for the one hundred yard dash. He married while still in high school, then attended Ohio State University, where he broke world records in many track events. In 1936 he won four Olympic gold medals but was penniless because it was hard for a black man to find good work. He took several jobs and entered a business venture that fell through, but he was able to finish his degree. He was appointed Ambassador of Sport for the United States and had many speaking engagements.

Thorne, Alice. Clemente. New York: Grossett and Dunlap, 1973. 90 p.

Roberto Clemente was born in Puerto Rico and grew up struggling to get enough to eat. In school, it was important to him to learn English. He loved to play baseball; it seemed as if he was born to play, and was the top all-round athlete in high school. He played ball with the Pittsburgh Pirates and was nominated to the National Baseball Hall of Fame in 1973. Roberto was very popular with the fans, as he was willing to talk to them after a game. He was able to make plenty of money for his family, and gave much to charity. After a severe earthquake in Nicaragua, he died in an airplane crash off the coast of Puerto Rico in 1972, while airlifting supplies to the victims.

White, Florence Meiman. Escape! The Life of Harry Houdini. New York: Julian Messner, 1979. 112 p.

Ehrich Weiss' mother would lock the cupboards so he could not eat the goodies, but he could always open them. During fourth grade, he took a job with a locksmith and could open every lock in the shop. At fourteen, he learned card tricks, visited magic shops, and read a book about Robert Houdini, a French magician. Being highly influenced by the book, he named himself Harry Houdini and vowed to be the greatest magician in the world. He practiced hard and was able to train his muscles. He could swallow a nail, hold it in his throat and bring it up again. Being inventive, he created new daring feats to attract attention to his act, but locks and handcuffs remained his main interest. His brother, and, later, his wife performed with him all over the world.

### Transportation

Collins, David R. Charles Lindberg: Hero Pilot. Champaign: Garrard Publishing Co., 1978. 80 p.

Charles Lindberg found airplanes exciting as a youngster. He did a good job helping on the farm, but he was not interested in farming. He tried college but dropped out because studying did not interest him. When he went to Army Air Service Training School, he was at the top of his class. His first parachute jump convinced him that he wanted to spend more time flying. Charles caused the advancement of aviation in the areas of long distance flights, new air routes, and new airplane designs. He became a hero after his solo flight across the Atlantic Ocean in 1927.

Fisher, Marquita O. Jacqueline Cochran, First Lady of Flight. Champaign: Garrard Publishing Co., 1973. 96 p.

Jacqueline Cochran was born to a very poor family but her first teacher taught her how to dress and keep herself clean. From then on she wanted to help the poor. At the age of ten she got a job in a cotton mill. She worked a variety of jobs before she became interested in flight. They included working for a well-to-do family, running a beauty shop, nursing to help the poor, and selling beauty products. Finding flight exciting, she became the first woman pilot to accomplish many feats, organized the WASPS (Women Airforce Service Pilots), was the first woman to receive the distinguished service medal, and was elected to the Aviation Hall of Fame. With this came the money to help the poor.

Nye, Doug. Carl Benz and the Motor Car. London: Priory Press Limited, 1973. 95 p.

Carl Benz's mother became widowed and she became determined that Carl receive a good education. He inherited mechanical ability from his father and a single mindedness and strength of will from his mother, which, at times, helped and hindered his career. He had excellent teachers and had experience in advanced yet practical scientific research and development. Upon graduation he worked for a large manufacturer of machinery, locomotives, turbines, etc. Next he joined an engineering firm. He was able to learn from the work of others and develop better engines. Eventually he invented a motor car in 1885.

Quackenbush, Robert. The Boy Who Dreamed of Rockets. New York: Parent Magazine Press, 1978. unp.

Robert H. Goddard liked anything to do with science. He had no siblings but he never had trouble thinking of things to do. He inherited inventiveness, coming from a long line of machinists. His father invented machine tools. Robert read magazines and tried many imaginative experiments. The science of flight and space interested him the most. From the ages of sixteen to nineteen, Robert was sick in bed and spent much of the time reading mathematics and physics materials. He had a vision of the rocket that he would later invent. He spent the rest of his life inventing, experimenting, and teaching, receiving grants to cover the costs of his experiments. Robert laid the foundation for today's missiles, rockets, satellites, and space vehicles.

## Chapter 5

### SUMMARY, CONCLUSIONS, RECOMMENDATIONS

This study was conducted to find biographies representative of various career choices an individual might make. The hypothesis stated,

An annotated bibliography consisting of four individual biographies for each of the fifteen job clusters, each meeting the criteria stated in the methodology and complementing the grades 4-6 career education program, can be developed.

An extensive search was made through all avenues available to the researcher to find four biographies representing each of the fifteen job clusters. Each biography was read and analyzed in order to see if it met the specific criteria outlined. Annotations were written and the annotated bibliography was developed.

A number of unexpected difficulties were encountered during the course of this research. More significant than the self-imposed limitations of this study were the difficulties posed by the styles of writing, approaches used, and selections of individuals made by the biographers.

Librarians have done their job in acquiring biographies for their collections. In searching through the collections, many biographies were found in the areas of science, medicine, the arts, sports, music, history, politics, and writing. These were classified in the job clusters of Agribusiness and Natural Resources, Environment, Communication and Media, Fine Arts and Humanities, Health, Public

Services, and Recreation and Hospitality. The professions in these areas are well represented. The job clusters of Construction, Manufacturing, Marine Science, Marketing and Distribution, and Office have a minimal amount of biographies available and in some instances the researcher was unable to find four biographies. No biographies were found for the job clusters of Consumer and Homemaker and Personal Services. It would seem that society does not place these careers in high esteem although they are necessary for daily survival. Biographers, in response to society, have chosen to write about outstanding careers and persons and have neglected these career areas. Some biographies could be classified in more than one cluster due to the varied careers of the subjects. In such instances, the researcher was forced to use a certain amount of editorial discretion to classify the biography in the most appropriate career cluster.

The researcher observed that there were several unique approaches to the writing of biographies. One of the approaches used by biographers was typically found in the biographies of athletes. Only a relatively small segment of their careers is examined or discussed, such as, a particular sporting event or season. This approach may have been appropriate for the objectives of the biographer; however, the books in which this approach appeared seemed to be inappropriate for the inclusion in this study because they did not meet the previously identified criteria.

Biographers tended to select as their subjects, individuals who contributed in substantially significant ways to society, culture, or history. People whose contributions may not seem to be as significant tended not to be represented. Biographers tend to choose pioneers, rather than modern day practitioners, in a field. Current career

information may not be presented in a field, but the students reading about pioneers in a particular field would gain an insight into and an interest in that particular field.

It was found that the initial limitations of the study restricted to some extent the availability of works for this study. The limitation on copyright date and reading level were found to have impact. Researchers in the future, who may wish to replicate this study, may want to give consideration to less limiting criteria, especially if it is important to have a larger number of works with which to deal. In this particular study, although the limitations were constraining, this should add a certain amount of power to the study's findings.

In order for a book to be included in the annotated bibliography, it needed to meet the following criteria: 1) The book dealt with at least one specific career. 2) A relationship was shown between the career and the individual's abilities, interests, and values. 3) A relationship was shown between the individual's education, experiences, and life-style and the choice of a career. 4) The individual's contribution to society was apparent. 5) The individual was satisfied with the career choice. 6) The book was free from stereotypes. As the researcher proceeded through the methodology of this study, it was the intention to include works only if they met all the above criteria. However, as the methodology was carried on, it was evident that the criteria concerning stereotyping was inappropriate, since it was found that no authors intentionally reinforced existing stereotypes concerning particular careers. If in fact there was a problem with reinforcing stereotypes, it was in the process of selection by the biographers as they identified



individuals about which to write. In order to provide a balance to avoid career stereotyping, only individuals in atypical careers such as men in nursing, women in construction work, or minorities in high finance would have to have been considered. For that reason, it was decided not to address the question of stereotyping, except in situations where individuals were definitely in atypical careers.

A definite relationship was shown between the individual's career and his/her abilities, interests, values, education, experiences, and life-styles. It was found that it was unnecessary for the individuals in this study to go through a sequential decision-making process in order to decide on a career. Instead, there seemed to be a natural flow into their careers. From an early age, the individuals seemed to be extremely interested in and driven toward their eventual career choices. They possessed the abilities, interests, and values which later combined with their education, experiences, and life-styles that really made it unnecessary to systematically choose a career. They just assumed the career role that seemed to be the most natural one for them. The intertwining of these factors was discussed in the annotations.

Several possibilities for further research based on this study exist. A survey of high school seniors who have made tentative career choices could be conducted in an attempt to try to ascertain the extent to which library materials influenced their tentative career choices. In schools where a significantly higher than average number of students go on to higher education, a study could be conducted which would attempt to determine a correlation between the extent of career education materials available in that school's library

and the types of educational choices made. This might be contrasted to those schools that have a significantly lower than average number of students go into higher education. Perhaps the number of career education biographies is more reflective of other factors, such as, local resources available for education or the amount that local officials are willing to allocate for education. But, it might be found that a school's strong commitment to career education materials in a library affects that school's graduates' quest for higher learning and more sophisticated and intelligent career choices.

Another area for further study might be to replicate this study using biographies with copyright dates from the 1980-1990 era. The findings of that study could be contrasted in a number of ways to the findings of this study. Most likely that study would indicate that this future era will have a more enlightened attitude toward career options available for all individuals and for women and other minorities especially. It is suspected that the number of works available in each career cluster would be more diverse than those available for this study, since society has become more diverse in its career options available for people.

A possible area for local action research would be to do a checkout study of a particular library to determine the number of biographies checked out in a particular time period, such as one year. The number of biographies checked out could be correlated with the total number of books checked out during the same time period. If the readership of biographies is proportionately higher than the readership of other parts of the collection, this may justify the expansion of the biography section with a particular theme in

mind, such as, atypical career selection for women, if developing this particular concept is a high priority with the librarian.

Career education is a critical area for schools in America. A high proportion of jobs which will be held by the students entering the kindergarten class of the fall of 1984 do not exist. In order to be prepared for that world, children need to be exposed to a variety of career choices. This study has value as a resource in the examination of various career choices. The study found that the reading of biographies is indeed an appropriate method to gain that exposure. The reading of biographies is a relatively painless method and, in fact, is an enjoyable method to learn about these options.

## BIBLIOGRAPHY

## BIBLIOGRAPHY

Bailey, Larry J. and Ronald Stadt. Career Education - New to Human Development. Bloomington, Illinois: McKnight Publishing Co., 1973.

Bibliography on Career Education. ERIC Document Ed 114 506. 1973.

Billings, Mary DeWitt and Janet S. Rubin. Dealing in Futures: Career Education Materials for Students, Parents, and Educators. Educational Materials Center. ERIC Document Ed 141 573. 1977.

Blue, Rose. "The Biography As Realistic Children's Literature," Teacher, 94:61-66, January, 1977.

Buck, Pearl S. "Literature and Life," National Education Association Journal, 27:171-6, September, 1938.

Career Development Resources: A Bibliography of A-V and Printed Materials, K-12. Eric Document Ed 117 292. 1975.

Career Education: An Annotated Instructional Materials List, K-12. ERIC Document ED 118 756. 1975.

A Career Education Model, K-12. ERIC Document Ed 114 552. n.d.

Career Education Resource Bibliography. ERIC Document Ed 117 548. April, 1973.

Career Education Resource Guide: Michigan. ERIC Document Ed 118 951. 1975.

Careers and You. ERIC Document Ed 112 193. 1972.

Dabrowski, Walter G. "Character and Personality Profiles in the Classroom," Social Education, 42:532, October, 1978.

Engels, Dennis W. "A Local Approach to Identifying Biographical Literature for Vocational Exploration," The Vocational Guidance Quarterly, 28:183, December, 1979.

Gentry, D. "Challenge of '68: A Commitment That Won't Go Away," American Vocational Journal, 49:32-3, September, 1974.

Herman, Gertrude. "'Footprints on the Sands of Time': Biography for Children," Children's Literature in Education, 9:88-89, Summer, 1978.

Huck, Charlotte S. Children's Literature in the Elementary School. New York: Holt, Rinehart and Winston, 1976.

Human (and Anti-Human) Values in Children's Books. New York: Council on Interracial Books for Children, 1976.

- Iowa Department of Public Instruction. Models for Career Education in Iowa, Implementing Career Education in the School Curriculum. 1974.
- Iowa Department of Public Instruction. Models for Career Education in Iowa, Kindergarten-Grade 6. 1974.
- Iowa Department of Public Instruction. Models for Career Education in Iowa, Selected Occupations by Clusters for Use in Elementary Schools. 1974.
- Jesser, David L. Career Education: A Priority of the Chief State School Officers. Salt Lake City: Olympus, 1976.
- Mansfield Career Awareness Model, Grades K-6. ERIC Document ED 112 062. 1975.
- Mitchell, Anita M. The Use of Media in Career Education. ERIC Document Ed 127 974. 1976.
- Olsen, Henry D. and John N. Mangieri. "Career Education in the Elementary English Curriculum," Elementary English, 52:19-22, January, 1975.
- PCE/K-10. Resource Supplement - Grades K-6. ERIC Document ED 110 770. June, 1974.
- Paulter, Albert J., comp. Career Education: Purpose, Function, and Goals. MSS Information Corporation, 1973.
- Peterson, M. "Career Curriculum for Elementary Education," American Vocational Journal, 49:27, May, 1974.
- Research and Development Project in Career Education, Curriculum Resource Guide, Volume II - Grades 5-8. ERIC Document ED 130 135. 1974.
- Ressler, Ralph. Career Education: The New Frontier. Worthington, Ohio: Charles A. Jones Publishing Co., 1973.
- Russell, David H. "Contributions of Reading to Personal Development," Teacher's College Record, 61:435-441, May, 1960.
- Sive, Mary Robinson. "New Media Materials for Career Education," Curriculum Review, 17:95-114, May, 1978.
- "Selected Bibliography on Career Education," Social Education, 37:531-2, October, 1973.
- Sutherland, Zena and May Hill Arbuthnot. Children and Books. Glenview, Illinois: Scott, Foresman and Company, 1977.
- Taba, Hilda. Reading and Pupil Development. The University of Chicago, October, 1940.

Teacher Guide for Increasing the Career Awareness of Elementary Children, Grades 4-6. Rev. ed. ERIC Document ED 114 467. August 10, 1972.

Tinker, Miles A. and Constance M. McCullough. Teaching Elementary Reading. New York: Appleton-Century-Crofts, 1968.

Ury, Claude M. "Books in the Field: Career Related Guidance for Youth," Wilson Library Bulletin, 44:621-31, February, 1970.

Webster's New World Dictionary of the American Language - College Edition. Cleveland: The World Publishing Company, 1974.

York, Edwin G. "A Career Education Media Mix," Previews, 5:10-17, October, 1976.

## APPENDIX A



## Appendix A

## IOWA DEPARTMENT OF PUBLIC INSTRUCTION JOB TITLE RECOMMENDATIONS

AGRIBUSINESS AND NATURAL RESOURCES

Farmer  
 Florist - Nurseryman  
 Gas Truck Driver  
 Miner  
 Game & Fish Warden  
 Locker Plant Butcher  
 Soil Conservationist  
 Forest Ranger  
 Geologist  
 Extension Agent  
 Horticulturist  
 Agricultural Engineer

CONSTRUCTION

Plumber  
 Carpenter  
 Painter, Paper Hanger  
 Electrician  
 Bulldozer Operator  
 Road Construction Worker  
 Real Estate Broker  
 Welder  
 Ship Builder  
 Interior Designer Decorator  
 Civil Engineer  
 Construction Engineer

ENVIRONMENT

Custodian  
 Refuse Collector  
 Camp Counselor  
 Recycling Operator  
 Park Ranger  
 Meteorologist  
 Astronaut  
 Fish Hatchery Manager  
 Environmental Tester  
 Pathologist  
 Pharmacologist  
 Animal Husbandry

COMMUNICATION AND MEDIA

Television Repairman  
 Telephone Operator  
 Radio Announcer  
 Performer  
 Mail Carrier  
 Librarian  
 Reporter  
 Writer  
 Cameraman  
 Computer Programmer  
 News Analyst  
 Satellite Transmission Specialist

CONSUMER AND HOMEMAKER

Babysitter  
 Painter  
 Homemaker  
 Gardener  
 Baker  
 Nursery School Teacher  
 Infant and Child Nurse  
 Home Economics Teacher  
 Architect  
 Model  
 Clothing Designer  
 Buyer - Clothing, Food, etc.

FINE ARTS AND HUMANITIES

Piano Teacher  
 Librarian  
 Band Director  
 Photographer  
 Artist  
 Minister  
 Dancer  
 Singer  
 Performer  
 Archaeologist  
 Writer - Poet  
 Designer - all types

HEALTH

Doctor  
 Nurse  
 Ambulance Driver  
 Dentist  
 Audiologist  
 Medical Clerk (Office Worker)  
 Health Insurance Personnel  
 Physician Assistant  
 Therapist  
 Psychologist  
 Anesthesiologist  
 Medical Technologist

MARINE SCIENCE

Fisherman  
 Skin Diver  
 Pearl Diver  
 Tropical Fish Dealer  
 Barge Captain  
 Lighthouse Keeper  
 Underwater Photographer  
 Oceanographer  
 Motorboat Mechanic  
 Hydrologist  
 Alligator Farmer  
 Glaciologist

OFFICE

Cashier  
 Secretary  
 Postal Clerk  
 Bank Teller  
 Telephone Operator  
 Computer Programmer  
 Insurance Agent  
 Real Estate Salesperson  
 Foreign Language Stenographer  
 Statistician  
 Corporation President

MANUFACTURING

Secretary  
 Truck Driver  
 Salesperson  
 Machine Operator  
 Stock Clerk  
 Efficiency Expert  
 Shipping & Receiving Clerk  
 Draftsman  
 Engineer  
 Maintenance Electrician  
 Biochemist  
 Accountant

MARKETING AND DISTRIBUTION

Clerk in Store  
 Delivery Person  
 Salesperson  
 Truck Driver  
 Auctioneer  
 Coin Vending Machine Collector  
 Circulation Manager (Newspaper)  
 Wedding Consultant  
 Shipping Clerk  
 Storekeeper  
 Buyer  
 Dispatcher  
 Personal Shopper

PERSONAL SERVICES

Barber  
 Pet Shop Owner  
 Paper Carrier  
 Ambulance Driver  
 Housekeeper  
 Dog Trainer  
 Cook & Chef  
 Veterinarian  
 Attorney  
 Bartender  
 Physical Therapist  
 Embalmer

PUBLIC SERVICES

Fire Fighter  
 Teacher  
 Life Guard  
 Minister  
 Lawyer  
 Recreation Center Director  
 Detective  
 Soldier, Sailor, Airman, etc.  
 Warden  
 College Faculty Member  
 Sewage Plant Operator  
 FBI Agent

RECREATION AND HOSPITALITY

Ticket Taker  
 Clown (Circus Performer)  
 Umpire  
 Caddie  
 Camp Counselor  
 Sports Announcer  
 Professional Athlete  
 Hunting & Fishing Guide  
 Rodeo Performer  
 Theatre (Performer)  
 Conductor (Music)  
 Sports Columnist

TRANSPORTATION

Bus Driver  
 Car Wash Worker  
 Airline Stewardess or Steward  
 Ticket Agent  
 Taxi Driver  
 Auto Mechanic, Service Station Person  
 Pilot (Airline)  
 Travel Agent  
 Safety Engineer  
 Air Traffic Controller  
 Locomotive Engineer  
 Ship Captain<sup>29</sup>

Many of these types of careers can be classified into several clusters.

One career may be in more than one cluster because of the type of work the job involves, or several different jobs may have the same title or similar title.

---

<sup>29</sup>Models for Career Education in Iowa, Selected Occupations by Clusters for Use in Elementary Schools, (Des Moines, Iowa: Department of Public Instruction, 1974), p. 2-18.

## APPENDIX B

## Appendix B

## Checklist For Evaluating Biographies

Author \_\_\_\_\_

Title \_\_\_\_\_

Publisher \_\_\_\_\_

City of Publication \_\_\_\_\_

Copyright Date \_\_\_\_\_

Biography of \_\_\_\_\_

Number of Pages \_\_\_\_\_

1. What career is dealt with?
2. What relationship is shown between the career and the individual's abilities, interests, and values?
3. What relationship is shown between the individual's education, experiences, lifestyle, and career choices?
4. What is the individual's contribution to society?
5. In what way is the individual satisfied with his career choice?
6. What stereotypes are found in the book?