Prepared by an instructor and a curriculum development specialist, this course of study was designed to meet the individual needs of the dropout and/or hard-core unemployed youth by providing skill training, related information, and supportive services knowledge about offset printing. The course provides training in offset printing and related darkroom procedures. The level of achievement of each individual is determined, and small instructional units are used to provide continuing positive reinforcement and to minimize frustration. Instructional units include composition and layout, process camera operation, stripping, plate making, small press, and finishing operations. Brief descriptions of other instructional areas, teaching techniques, material utilization, motivational devices, and case studies are appended. Related materials are available as VT 011 518-VT 011 533 in this issue. (GR)
THE MINNEAPOLIS
PUBLIC SCHOOLS

WORK OPPORTUNITY CENTER
107 Fourth Street Southeast
Minneapolis, Minnesota 55414

1969

OFFSET PRINTING.

REPORT PREPARED BY:
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U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION
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ACKNOWLEDGMENTS

Mrs. Jean M. Sontag for typing the description
Mr. Ervin W. Bly and students for printing
Mr. Patrick D. Murrill for the cover design
Michael P. Joseph, Ph. D., Research Director
Mr. Roy E. Almen, Research Assistant
And other members of the Center staff

The work presented herein was performed pursuant to
grants from the United States Office of Education,
Department of Health, Education, and Welfare.
INTRODUCTION

In May 1966 the Minneapolis Public Schools received a Federal Grant under section 4C (Research) of the Vocational Education Act of 1963. This grant was provided to finance an educational endeavor designed to meet the individual needs of the dropout and/or hard-core unemployed youth in the 16 through 21 year age group in terms of skill training, related information and supportive services.

Funds are also received from the Minnesota Department of Vocational Education, Title III of the National Elementary and Secondary Education Act, and the Minneapolis Public Schools. All certificated personnel at the Work Opportunity Center must be vocationally certified under the Minnesota State Plan for Vocational Education.

It was felt at the outset that if we were to deal effectively with students in school, it would be necessary to help them deal with their problems out of school. At the present time the WOC staff numbers fifty. Included are personnel in guidance, work coordination, social work, research, health, clerical, building maintenance, and administration.

Facilities are provided in the following areas: Business Education, Communications (related), Creative Art, Drafting (related), Dry Cleaning, Electricity and Electronics, Food Preparation and Service, Homemaking (clothing and interior decorating), Homemaking (personal improvement and foods), Machine Tool Operation, Marketing and Merchandising (retail sales), Mathematics (related), Nurses Aide and Hospital Orderly, Offset Printing, Reading (remedial and developmental), Service Station Attendant and Light Automotive Maintenance, Small Engine Maintenance and Repair, and Social Communications (related). Brief descriptions of these instructional areas appear in Appendix A of this report.
Because of a general and local need for workers in nearly all occupations, the selection of technical course offerings was based largely on kinds of occupations, i.e., those in which a worker has good opportunities for advancement if he has the ability and desire to do so.

Because this report is concerned with the curriculum of a particular instructional area, program descriptions of supportive services are not included. This information is available in the WOC Summary Report of Activity and Research for the period May, 1966 to June, 1968.

The basic differences between instruction at the WOC and in conventional schools are in the setting and the approach.

The setting is a non-school type building with an informal, relaxed atmosphere. Class size is small. No one is ever too busy to give a student some of his time when the student needs it. The unique feature of our "rules and regulations" is that they are either functional or non-existent. The Student Advisory Committee has a strong voice in determining the rule structure at WOC and its implementation. A basic requirement is that a student be enrolled in a technical area. Other than that, decisions are made by students, with all the help they need or will accept from teachers, counselors, social workers, work coordinators, clerical staff, and administration.

The approach focuses on the individual. His needs are paramount. Each student is accepted as he is. His level of achievement or performance is determined, not assumed. He is taken from where he is and is assisted as far as he will go in the shortest possible time. No instructor or student is burdened with a standardized curriculum or a fixed set of materials. Grades are not used. Content is broken down into small instructional units in order to provide continuing positive reinforcement.
and to minimize frustration. Successes, however insignificant, are emphasized. Instructors are sincere in their efforts with students for two reasons: 1. Teacher selection was based largely upon the possession of this characteristic of sincerity and, 2. An instructor without a sincere approach would soon have an empty classroom, for the only "hold" he has on his students are the relationships he can establish with them. These positive relationships are not always easy to establish, in fact, are not established at all in some cases (we also have our dropouts).

A listing of techniques, materials, and motivational devices that have been selectively utilized by WOC staff appear in Appendix B of this report.

The results of this kind of an approach are satisfying when evaluated in terms of positive attitudinal changes over a period of time. An outstanding example is the fact that in a school population where approximately one-fourth of the students are on probation or parole, and nearly all have dropped out of the conventional school, there has not been one discipline problem in a classroom or training area.

Floyd L. Anderson
Curriculum Development Specialist
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STATEMENT OF OBJECTIVES

To develop in each student:

1. An active interest in industrial life and in the methods of production and exchange.
2. An appreciation of good design and workmanship.
3. Desirable attitudes and practices with respect to health and safety.
4. The habit of an orderly, complete, and efficient performance of an assigned task.
5. A measure of skill in the use of tools and machines common to the graphic arts industry.
6. The habits of self-reliance and resourcefulness in meeting practical situations.
7. An understanding of present job opportunities and future job potentials.
8. An understanding of technical information related to the graphic arts field.
9. An appreciation of education and technical advancement as the key to success.
OBJECTIVE 1

To develop in each student an active interest in industrial life and in the methods of production and exchange.

A student achieving this objective will:

1. Know how various printed jobs are produced.
2. Know the capabilities and limitations of the equipment he is using.
3. Demonstrate a greater interest in and appreciation for the graphic arts field.

OBJECTIVE 2

To develop in each student the appreciation of good design and workmanship.

A student achieving this objective will:

1. Have a greater appreciation of good workmanship.
2. Will strive to do his best.
3. Know and understand assigned tasks.
4. Be open minded about accepting new and improved methods.
5. Be able to accept constructive criticism.
6. Experiment to find better methods of producing the job.
7. Know what good design consists of.
8. Have an understanding of color.
9. Will have the general philosophy, "How could I have made this job more attractive?"
OBJECTIVE 3

To develop in each student desirable attitudes and practices with respect to health and safety.

A student achieving this objective will:

1. Understand the right and wrong methods of handling equipment and materials in the graphic arts field.
2. Understand what correct appearance on the job should be.
3. Have the opportunity to observe workers on the job in respect to safety practices.
4. Have a general knowledge of the importance of safe practices.
5. Understand the necessity for good employer-employee and employee-employee relationships and attitudes.

OBJECTIVE 4

To develop in each student the habit of an orderly, complete, and efficient performance of an assigned task.

A student achieving this objective will:

1. Keep his work station orderly.
2. Be consistent in his work.
3. Know importance of personal cleanliness.
4. Know importance of neatness in his finished product.
5. Constantly work toward a better product.
6. Know the importance of being on time.
7. Be able to take orders and constructive criticism.
OBJECTIVE 5

To develop in each student a measure of skill in the use of tools and machines common to the graphic arts industry.

A student achieving this objective will:

1. Understand and be able to operate the following equipment:
   a. Small offset press.
   b. Process camera.
   c. Plate making equipment.
   d. Photo-composing machines.
   e. Other types of composing equipment.

2. Visit printing shops to see other types of equipment in operation.

3. Maintain the equipment in good working condition.

4. Understand the importance of good working habits in regard to the condition of the equipment he is using.

OBJECTIVE 6

To develop in each student the habits of self-reliance and resourcefulness in meeting practical situations.

A student achieving this objective will:

1. Understand his limitations and capabilities.

2. Have a desire to up-grade himself through on the job training and study.

3. Know where to find or who to ask for information on how to do a certain task.

4. Have respect for other workers.
5. Increase his ability through special projects.

6. Have a greater measure of patience and a willingness to help slower learners.

OBJECTIVE 7

To develop in each student an understanding of present job opportunities and future job potentials.

A student achieving this objective will:

1. Understand the requirements for employment in this field.
2. Be aware of job possibilities.
3. Meet and talk with people in the graphic arts field.
4. Understand what "having a job" means in regard to responsibility and loyalty to the employer.
5. Understand the apprenticeship program.
6. Understand union membership requirements.

OBJECTIVE 8

To develop in each student an understanding of technical information related to the graphic arts field.

A student achieving this objective will:

1. Understand and use the vocabulary of this industry.
2. Become acquainted with the tools and equipment of the graphic arts field.
3. Know and read the trade journals related to this field.
4. Become active in trade organizations.
5. Recognize excellence in printing and know what goes into the finished product.
OBJECTIVE 9

To develop in each student an appreciation of education and technical advancement as the key to success.

A student achieving this objective will:

1. Understand the importance of a high school education as a key for advancement in the graphic arts field.

2. Understand that technical training will never be completed. Technology is changing everyday and the need for employees with those skills is increasing.
ATTAINMENT OF OBJECTIVES

When a new student arrives in this department the instructor has a brief introductory discussion with him about the Graphic Arts area. Every effort is made to put him at ease. The instructor asks him about his past experience, where he attended school before, what his plans are, present and future, and what he expects to gain at the Work Opportunity Center.

Shop procedure is explained, and also what is expected of him. The student is then taken around the shop and shown the various sections and equipment. During this brief tour the instructor is usually able to determine whether the student is seeking credit to apply toward graduation from high school or if he is interested in trade training and job placement. This information is entered on his registration card and his training is slanted in the direction he wants to go.

The first day the student arrives he starts his first job. He wants to get busy and the quickest way to lose him is to allow him to stand around with nothing to do. The first exercise is explained very carefully by the instructor. Adequate time is taken at this point to make the student feel he is a part of the team. The student is also shown a series of photographs with written instructions that describe in detail how the job is to be completed. He is given the opportunity to choose the information that goes into the job, but the operational steps are the same for all students.

It is extremely important that the student knows that you care about him and what he is doing. He is not left alone very long on this first job. The instructor checks his progress frequently. The student is praised, encouraged, and corrected if necessary. Success on this first effort is essential.
The student progresses through all sections of the shop in the above manner. It amounts to individual tutoring of each student. He is first shown how to operate a piece of equipment and then is allowed to try it under supervision. He is encouraged to ask questions. The various safety factors are explained for each machine. The student then is left alone to try again. If the student feels that the instructor trusts him, a big step forward has been accomplished. This may be the first time in their life they have been trusted on their own after only minimal instruction. Results have shown that students will try to justify this trust. This method is used primarily in the darkroom with the process camera. There is no danger of the student getting hurt and he can produce professional quality work in a very short time. Some film is wasted, but the results more than justify the expenditure of these supplies.

This first job takes the average student about a week to complete. All instruction has been on an individual basis. The instructor showing and encouraging, and the student doing. After he has progressed through all of the sections he is left increasingly on his own. At this point in the training, the instructor checks only the last step in each section. If the student is doing work that is not up to standards it is turned back with encouragement and suggestions, to be done over. The student must learn that industrial standards are high and anything less is not acceptable.

Additional work in each section is assigned so that the student becomes proficient in each operation.

At times when the instructor is working with beginning students it is necessary to rely on advanced students to help other students with their jobs. This has worked well. The beginner does not have to wait
for the instructor and the advanced student responds favorably to the added trust and authority. Teacher aides and Title V personnel have been employed successfully in reducing the waiting time caused by the individual method of teaching.

One of the incentives used in this area is ten cent coupons given for each hour of attendance. These coupons may be redeemed for lunches in the cafeteria, dry cleaning, or for services at our service station. Their use seems to motivate students that otherwise might not come to class. An Award of Merit certificate is given upon completion of 80 hours of work in class. Students like to receive this certificate and on one occasion a student reminded the instructor that he was eligible and had not been given his certificate.

The work coordinators give the students a great deal of help with job placement. They supply information on job openings, how to apply, employer expectations, appearance, what to expect on the job. They are candid about a student’s prospects of getting a job if his appearance does not meet the employer’s expectations. Some students are unwilling to accept this, but usually modify their appearance after experiencing rejection on job applications on their own.

After a student has acquired skills in all phases of the course he is assigned a production type job. A number of these types of jobs are accepted from within the school district if they can be used for teaching purposes. The jobs selected usually involve a short run, one color, and few finishing operations. The student is given a job ticket listing the operations to be completed. His task, then, following the instructions on the job ticket, is to set up cold type and make a paste-up. He then photographs the copy, strips it, makes the plate, prints the job and performs any finishing
operations. The student checks with the instructor as he finishes each phase of the job. This procedure enables the student to gain experience in the kinds of problems he will encounter in a small offset shop. It also develops confidence and a feeling of success or accomplishment in the student as he sees the results of his own work take shape.
INSTRUCTIONAL TOPICS OR OPERATIONS

1. Orientation
2. Printing Occupations
3. Theory of Offset Printing
4. Paste-up with Coldtype Composition
5. Methods of Coldtype Composition
6. Preparing ruled forms
7. Ruling Goldenrod sheets
8. Strip a Negative
9. Strip several Negatives
10. Strip for Double Burn
11. Strip for Step and Repeat
12. Strip for Work and Turn
13. Opaque a Negative
14. Burn a Plate
15. Burn a Step and Repeat Plate
16. Develop a Plate
17. Safety Procedures
18. Prepare Press for Operation
19. Feeding Blank Sheets
20. Parts of the Offset Press
21. Preparing the Ink Unit
22. Adjust Press for Paper thickness
23. Prepare the feeding system
24. Prepare the dampening system
25. Adjust press for Paper sizes
26. Adjust Image Position
27. Install and Remove Plate
28. Operate the Offset Press
29. Adjust Dampening Form Roller
30. Adjust Ink Form Rollers
31. Care of Press Rollers
32. Install New Blanket
33. Install Dampening Covers
34. Wash a press
35. Effect of static on operation
36. Recognize Press troubles
37. Correct Press Run troubles
38. Maintenance of Offset Press
39. Lubricate the Offset Press
40. Dark Room Maintenance
41. Parts of the Process Camera
42. Mix Processing Chemicals
43. Expose a Line negative
44. Develop a Line negative
45. Make a positive
46. Expose a halftone Negative
47. Develop a halftone Negative
48. Kinds of Paper
49. Kinds of Ink
50. Printing with Paper Plates
51. Types of Offset masters
52. Printing on both sides of sheet
53. Operation of Paper Cutter
54. How to Tab the finished job
55. Folding, gathering, and stapling
56. Methods of Collating
57. Reducing and Enlarging - camera
58. Punch and Bind - Plastic
59. Headliner Operation
60. Printing Envelopes
61. Packing Finished Job
SELECTED ANNOTATED BIBLIOGRAPHY

BOOKS


A good text for advance students and instructor reference book.

PERIODICALS


This is a very good publication for keeping abreast of new products in the trade. An advertisers' information service is provided. New equipment is featured each month.


Similar to the above mentioned publication but with a slightly different focus. Interesting sections are: New products, What's new, Photomechanics forum, Camera & platemaking, Industry news, and Free Literature, Booklets, Technical Data, etc.

PUBLICATIONS OF THE GOVERNMENT OR OTHER ORGANIZATIONS

*A Graphic Arts Course Outline*. Addressograph-Multigraph Corp., Cleveland, Ohio.

A good step-by-step course for beginning students on the 1250 multilith.

*How to be a Smooth Operator*. Minnesota Mining and Manufacturing Company, Minneapolis, Minnesota.

Good trouble shooting manual. Lots of press tips.


Good, practical suggestions on dos and don'ts in layout.


This book contains a complete photo-offset course with good photographs and reference material. An excellent instructor reference guide.

A good student reference manual on how to run the Model 1250 multilith.

AUDIO-VISUAL MATERIALS

Teacher Produced Materials:

a. Using cold type
b. Using Headline machine
c. Stripping

A series of photographs showing the steps involved in each of these operations. Each picture has a short, printed explanation.

Filmstrips:


This filmstrip shows how to make a halftone negative and what to look for in a good halftone.
APPENDIX A

BRIEF DESCRIPTIONS OF WORK OPPORTUNITY CENTER INSTRUCTIONAL AREAS

BUSINESS EDUCATION
Instruction is offered in typing, filing, bookkeeping, record keeping, and in the use of small calculators, key punch machines, and office duplicating equipment. All instruction is based on current business practice. There are many positions open to students who complete this training. Included are jobs as typists, file clerks, receptionists, and key punch operators.

COMMUNICATIONS (related)
Students work individually at improving their oral language usage, writing skills and study habits. A wide variety of printed materials, audio-visual equipment and materials, and the use of individual study carrels facilitate student progress. Work may be directed toward transfer credit, GED test preparation, or job related skills.

CREATIVE ART
Students work independently. Individual instruction is provided with a wide variety of materials and equipment. The goal is the development of confidence in the areas of decision making, self-expression, and evaluation in art and everyday life. Within this framework, a student may study in depth or he may explore several areas.

DRAFTING (related)
Students taking this course learn the basic elements of drafting. The instructor cooperates closely with the teachers and students in the machine tool operation and electricity and electronics areas in order to teach the drafting and blueprint reading related to these specialized occupations. There are many positions open to machine draftsmen. The skills involved are also basic to a variety of related jobs. Qualified students are referred to area vocational schools, technical schools, or apprenticeship programs for further training.

DRY CLEANING
Students in this area are instructed in all phases of operation of a modern dry cleaning plant. They are encouraged to specialize if they express a desire to do so. Instruction in marking, invoicing, and customer service is handled by the marketing and merchandising teacher. Students can learn basic tailoring and garment repair in the sewing section of the homemaking area. Persons possessing these skills are in great demand in the Minneapolis, St. Paul area.

ELECTRICITY AND ELECTRONICS
This course provides instruction in the fundamental principles of electricity and electronics. Topics include codes, laws, terms, and techniques common to this field. Modern testing equipment is used to diagnose and locate problems in radio and television receivers in order to complete necessary adjustments or repairs. With the present rapid expansion of this field, persons with basic knowledge and skills have little difficulty finding positions in production, service and repair or in advanced training programs.
FOOD PREPARATION AND SERVICE

Students in this area are instructed in the preparation and serving of soups and sauces, vegetables, meats, desserts, and breads. They also gain experience in selecting, ordering, receiving, and storing foods. Instruction is given in proper methods of setting tables and serving customers for those interested in this phase of the industry. Students completing this course are qualified to work in one or more of the following positions: salad worker, short order cook, cooks helper, kitchen worker, bakers helper, and waitress or waiter.

HOMEMAKING (clothing and interior decorating)

Students in this course receive instruction and practical experience in the areas of sewing, garment selection, and home and money management. Other units include interior decorating and related crafts. A special unit in basic tailoring is available for men that are learning dry cleaning. Students may use these skills in their own homes or as a basis for a variety of related occupations.

HOMEMAKING (personal improvement and foods)

Students taking this course work independently in the following areas: personality development, health improvement, foods, and marriage and family living. Topics covered within these areas include proper diet, exercise, grooming, wardrobe care and planning, visual poise, home food preparation, infant care, etc. Young men or women may select one or more parts of this program according to their interests or needs.

MACHINE TOOL OPERATION

Training in machine tool operation stresses the development of skills through practical experiences. Instruction is also provided in related topics. Machines used include the drill press, engine lathe, bench grinder, surface grinder, cutoff saw, and vertical and horizontal milling machines. Students completing this training are qualified for a variety of entry level positions in machine shops.

MARKETING AND MERCHANDISING (retail sales)

Emphasis in this course is placed on retail sales. Theoretical and practical instruction is provided in clerical skills, duties of salespersons, the selling process, and human relations. Review and practice in mathematics and communications is arranged when necessary. Two specialized areas included are cashier-checker and dry cleaning counter girl training. Many full and part-time positions are available to students possessing skills in the field of retail sales.

MATHEMATICS (related)

Instruction is provided on an individual basis for students who desire mathematics related to their technical interests. Work in this area may also be directed toward a high school diploma or the GED certificate. A stimulating variety of materials and methods are used to present theory and practical application.
NURSES AIDE AND HOSPITAL ORDERLY

Students taking this course are instructed in the knowledge and skills necessary for working as aides or orderlies in hospitals and nursing homes. Six to twelve hours a week are spent caring for patients in hospitals or residents in nursing homes. This experience is also valuable to students in home situations.

OFFSET PRINTING

This course provides training in offset printing and related darkroom procedures. Instructional units include composition and layout, process camera operation, stripping, plate making, small press, and finishing operations. Minnesota ranks very high nationally in the number of workers employed in the graphic arts industry. Students completing this course find many entry level positions open to them.

READING (remedial and developmental)

The specific nature of each student's reading problem is diagnosed. A program for remediation or improvement is designed by the instructor and student. A variety of equipment and material is used, ranging from that suitable for very disabled readers to that useful with students reading at the college level. An effort is made to relate classroom experiences to the technical area in which the student is enrolled. Emphasis is placed upon individual contact, with each student given continuing encouragement in his efforts to improve.

SERVICE STATION ATTENDANT and LIGHT AUTOMOTIVE MAINTENANCE

Training in this area is carried on in a WOC operated service station that is open to the public. Instruction is provided in driveway sales, lubrication, engine tune-up, brake work, and other repair and maintenance tasks short of major overhaul or body work. Students may receive related instruction in mathematics, sales, accounting, communications, etc. at the Center in addition to the related units taught at the station.

SMALL ENGINE MAINTENANCE and REPAIR

Persons enrolled in this course work independently on a variety of WOC, student, and customer owned two and four cycle gasoline engines. Instructional units in servicing, adjustment, repair, and overhaul are included. Students seeking employment in this field or those having to operate small gasoline engine powered equipment benefit greatly from this instruction.

SOCIAL COMMUNICATIONS (related)

Student interests and needs are given primary attention. The course offerings include independent study in psychology, government, labor unions, human relations, etc. A large number of references and audiovisual aids are available for student use. Instruction is presented on an individual basis as well as in small discussion groups.
APPENDIX B

TECHNIQUES, MATERIALS, AND MOTIVATIONAL DEVICES

Techniques, materials, and motivational devices that have been selectively utilized by Work Opportunity Center staff are listed below.

TECHNIQUES

1. Teacher-student talks. Teachers endeavor to determine where a student is, achievement-wise, and work with him from that point.

2. Subject matter content is divided into short instructional units, one-half to two or three hours in length.

3. Students are praised for completing a task or short unit. They may receive awards of merit for completing groups of units three or four weeks in length.

4. Students are often allowed to make their own choice as to what materials they will read or study.

5. Work and a record of progress is frequently kept up to date by the student. Self-evaluation - kept in individual student folders.

6. Teachers encourage students to move on to successively difficult tasks when success has been achieved on easier ones.

7. Open door policy - a student may come in anytime either to work or ask a question. Students are, however, encouraged to attend classes as they are scheduled.

8. Frequent, well organized field trips. Students decide where to go and what to look for.

9. Students are asked to make written comment on what they read - little correction - emphasis is placed on ideas and expression, not on grammar, spelling, etc. - teacher learns from and about student.

10. Compliments received concerning performance, attitude, etc. are shared with the student or students involved.

11. Good attendance is encouraged - emphasis is placed on days attended, not days missed.

12. Students keep own attendance by signing in and out of class.

13. Students are occasionally given blocks of work and allowed to progress as fast as possible.
14. Students are urged to call in when they are going to be absent. If a student doesn't call, the instructor or outreach worker calls the student. The emphasis is on better attendance, not excuses.

15. Classroom atmosphere is informal, relaxed, conducive to self-expression. Adverse competition is all but eliminated.

16. Student participation in planning the next day's work increases attendance.

17. Success is increased greatly when class size is kept small. This permits more individual attention, closer supervision, and programs of instruction tailored to individual needs and rates of learning.

18. Teachers notify intake personnel when they feel their class is full. The class size varies with the amount of individual attention each student needs. When the teacher can work with more students they are assigned.

19. Incoming students are given a brief test to determine reading level. Instructors are made aware of each student's reading ability. Students may also be programmed into a remedial or developmental reading situation.

20. Student and teacher work out the fine points of scheduling - agree on short and long-term goals.

21. The programming of students and jobs through the shop is done in the manner followed in industry.

22. Length of class periods and courses are flexible - depends on student proficiency and attitude.

23. Each individual is accepted as worthy regardless of personal appearance, manner of dress, or personality characteristics that may seem negative.

24. The use of advanced students to assist in the instruction of newer students has positive effects on both.

25. Instructors endeavor to establish a "helping" relationship..."I am going to help you get ready for this job." This approach emphasizes "partnership" in learning.

26. Every effort is made to get the students "doing" as soon as possible.

27. Two or more training areas may cooperate in teaching several phases of a course, e.g. Dry Cleaning - Marketing and Merchandising - Homemaking (sewing).

28. Lecturing, preaching, bossing, or threatening by the instructor is avoided.

29. Students are allowed to clean and press their own clothes or those of their family. They become much more critical of their work in these cases.
30. Homework is not assigned unless a student expresses a desire for it.

31. Most technical areas require very little reading or written work. Emphasis is placed on performance.

32. New students enter the program every week.

33. An intensive two-day orientation program is designed to make students feel comfortable in a new setting.

34. Students in the food preparation area plan a menu for the week and then prepare all of the food. Cafeteria-classroom is open to the public.

35. When a student exhibits greater than average interest in an area or department he is encouraged to specialize.

36. Regular office desks and equipment are used in Business Education. Room is arranged like an office.

37. Students are encouraged to accept their peers.

38. Students are asked to underline words or phrases in paperbacks or magazines. The instructor and student then go over these together.

39. The Marketing and Merchandising area is organized like a retail store using regular store equipment.

40. Students are never told that they are not capable or certain things. They are expected to perform. When necessary, realistic alternatives are presented.

41. Dry Cleaning - the use of student planned weekly "Specials", e.g. two skirts for the price of one. This enables students to polish their skills on selected kinds of garments.

42. Instructors avoid negative or emotional reactions.

43. Kindness is shown toward students. They are cared about. Emphasis is on the positive.

44. Instruction is personalized. Students' pictures or portraits (pencil sketches) are posted. Student dress is admired and commented favorably upon if it is in good taste.

45. Students are encouraged to get more education and training.

46. Tape recorders are used to improve oral language usage.

47. Students are shown a process, then allowed to try it themselves. If necessary, they are shown again. They are much more receptive the second time.
48. A manikin is used for student demonstration work in nurses aide classroom.

49. Nurses Aide students receive practical experience in a hospital or nursing home under the supervision of the instructor. They are encouraged to develop their own techniques in handling patient problems.

50. Overhead projectors are used for small group presentations.

51. In creative art demonstrations and/or experiments are carried out by a student or the instructor. This has the effect of motivating other students to try their hand at another art-form.

52. Tests, when used, show a student what he has learned. They are not used to determine grades. Grades are not given.

53. Marketing and Merchandising students learn about qualities of cashiers by going to stores and rating the cashier that waits on them.

54. An attempt is made to have each student learn something new each day.

55. Individual work station tool panels aid shop efficiency and have reduced loss of tools.

56. Student comments or criticisms are accepted with the idea of improving content, techniques, etc.

57. Emphasis is placed upon learning concepts through experiences rather than reading about them.

58. High quality work is encouraged and expected rather than just enough to "get by".

59. Entry and subsequent tests in Business Education are used to show the student what gains he has made.

MATERIALS

1. Short, instructor-produced, materials have been developed on a variety of topics.

2. Pamphlets and paperbacks are used extensively in several areas.

3. Selected materials in related subjects are directed toward the student's vocational interest area.

4. Several newspapers and a large selection of current magazines are used in Reading, Communications, Homemaking, and Social Communications.

5. An individual study sequence in psychology is used in Social Communications that helps promote self-understanding.

6. A series of questions, the answers to which can be found in current magazines, pamphlets, almanacs, atlases or filmstrips.
7. Students select and study materials with large print more often than those with small print.

8. Government Printing Office publications are used in nearly all areas.

9. Language lessons are used that employ local examples and student written sentences.

10. Trade and industrial publications are used in the technical and related areas.

11. No single textbooks are used. Reference materials are available that vary in difficulty and emphasis to accommodate student's ability and interest.

12. A series of retail sales language lessons were developed using Marketing and Merchandising materials.

13. Series of polaroid pictures are mounted and used to show the steps in various processes.

14. Programmed materials are used in several areas. They are supported by individual discussions and problem solving sessions.

15. A card game designed by the students and instructor is used to help students learn capitalization skills.

16. Programmed texts are used in a few areas to polish basic skills.

17. Sound filmstrips used in several areas with projectors that are designed for viewing by one to three persons. These are student operated.

18. Students in two areas are learning new words through the use of a modified tape recording machine utilizing cards with a strip of magnetic tape attached.

19. Films, filmstrips, and sets of slides produced by industry are available for loan or purchase - several areas use them.

20. Teacher produced manuals are used for training checker-cashiers and dry cleaning counter girls.

21. A few games are used in mathematics. The structure and strategy of games provide entry into a wide range of mathematical concepts.

22. Pre-recorded vocabulary tapes are used by students who need work on pronunciation.

23. Industry-produced charts and posters are used by several instructors.

24. Samples or portions of garments are made up showing steps and/or techniques of clothing construction. These are displayed on a series of flip charts.
25. Selected printing jobs are accepted from within the school district if they can be fitted into the training schedule.

26. Students browse and select books on art. They are encouraged to take these home for reading. If the book is a paperback they may keep it.

27. Glaze charts for the four kinds of clay used in art have been presented in four different ways -- mosaic, windchime, freeform mosaic, and relief. These charts, while primarily informative, have also had a motivating effect on students.

MOTIVATIONAL DEVICES

1. Art Shows - Several Art Shows have been set up at W.O.C. and at other places around the city. Work that is on display is also for sale. Most students find greater reward in the fact that people actually liked their work well enough to buy it -- money received seems to be secondary.

2. Coupons - Students receive a coupon worth ten cents for each class they attend. Coupons may be redeemed for lunches, dry cleaning, or automotive service. This system is very popular with the students. It generates several positive effects within our program in addition to providing immediate reinforcement of attendance.

3. Student Projects - Student owned engines, radios, etc. and private non-school equipment are worked on with much more enthusiasm than school training equipment.

4. Polaroid Camera - Pictures are taken of the student at the beginning of a sewing project, as it progresses, and at its completion. These pictures along with samples of the material and different details are mounted on an accordion-pleated story board. Students stop frequently to look at their progress and the progress of others. They also get great pleasure out of bringing in their friends to show them what they have accomplished.

5. Short Term Assignments - Short term assignments have been found to be one of the better motivational devices. A student is more likely to start and work on an assignment if he can see the end.

6. Checklist - A checklist of assignments, worksheets, projects, meetings, and activities is maintained in several areas. As each student in the class completes an activity, a checkmark is put in the proper square.

7. Successful Student Display - A large bulletin board upon which is displayed a close-up snapshot of each student who has gained clerical employment after having attended the Work Opportunity Center and has taken business training. A caption under the picture simply lists the student's name, place of employment, and type of work being performed. Some are depicted by two photos in a "before" and "after" arrangement. Prospective and beginning business students seem highly motivated by this display as they see the success being enjoyed by those pictured.
8. **Time Clock** - Most small engines students become hourly employees. A time clock was introduced as a training device. Use of this clock has motivated students toward better attendance. It has also simplified record keeping and provides a quick, line of sight reference showing who is in the shop. A time clock is also used in the marketing and merchandising classroom as it would be used in a place of business. Each student "punches" in or out for class as they would on a job. A student is assigned a rate per hour and calculates his earnings. Problems in determining deductions are also used. As a student progresses, his salary rate goes up.

9. **Awards of Merit** - An award of merit certificate is used in many areas of the Work Opportunity Center. The awards are earned by students for attending various series of classes and for completing certain tasks and assignments. For many students this may be the first such recognition they have received.

10. **Insignia** - Food Preparation is divided into five levels of accomplishment. Sleeve stripes are awarded to students for performance and attendance in various levels, and also inform the public of the student's position in the kitchen. Students attend and perform to be promoted from one level to another. Promotion is based on agreement of the instructor and the student department head and voted on by the entire kitchen staff.

11. **Path to Charm** - On "The Path To Charm" certificate, students plot their course with various colored stars as they complete units in personal improvement. Pictures taken with the Polaroid camera are inserted behind a felt paper frame on the certificate. These add recognition and a personal touch which the students need so desperately. Replacement pictures are taken and framed as the girls progress.

12. **Books Expendable** - This is a program which makes a variety of paperback books freely available to students. Several hundred volumes are on display, in bookstore-type wire racks, in the Reading Center. Students have complete freedom of choice in selection and are not required to seek permission before withdrawing a book. They are, however, encouraged to return the book when they have finished with it and to "swap" it for another. New titles are added each month to keep the collection up-to-date and to stimulate interest.

13. **Written Contract System** - Students enter into a written contract with counselors, teacher and others concerned. It "binds" both the student and the staff. He agrees to attend for a specific number of class hours, a specific number of days per week with the contract written for a relatively short period of time, depending on the resources of the student.

14. **Point System** - Because high school credit is important to many of our students, a point system is in effect in most areas of W.O.C. This system helps provide continuing reinforcement and facilitates record keeping and evaluation. One point is the equivalent of approximately one hour of work. Eighty points equals one credit. Fractional credit may also be recommended. This system complements the W.O.C. program.
15. **Chart of Learning Units** - A chart is on display in the business room depicting the various courses being offered. These courses are subdivided into fractional parts or learning units. The unique feature of the chart is in the visual subdividing. It is greatly simplified so that the student is not threatened by a feeling of insurmountable course work. Credit or check off is made early and quickly after the completion of the most rudimentary tasks. This is recorded on the business student's record card. As the student progresses through the learning units, credit and check off is given at specific junctures.

16. **Field Trips** - Art students have taken field trips to art museums, galleries, studios, exhibits, and theatres. Hikes and/or sketching trips have been taken to a dancing studio, the river, the downtown area, and the zoo. These trips are popular with the students and are always well attended.

17. **Consultations** - Individual and group consultations with students help eliminate grievances, improve attitudes, improve attendance, and make the students feel important. They also help instructors determine student needs, desires, etc. and make possible better referrals to other departments.

18. **Re-Organization of Service Station** - Peg board storage for tools - shelving for oil, etc. - rearranging of impulse sales items, painting back room and office, complete change of salesroom and office area. Helped establish a proprietary attitude in students - it's "our" or "my" station now.

19. **Uniforms** - An adequate supply of uniforms is maintained at all times at the Service Station and in the Cafeteria. This not only provides clean uniforms at all times, but has also been a definite, motivating factor in these areas.

20. **Machine Parts** - Students in the machine shop, on occasion, make parts for and rebuild machines that are no longer operable or are inaccurate to the point that they are of little value. This has been an excellent motivational device. A student can actually see the part that he produced functioning as a part of the machine.

21. **Unstructured Time** - Students are invited into the sewing room to work on an interior decorating oriented craft. A variety of simple projects have been completed. Each student keeps his project. A number of students who previously had little or no contact with each other have worked together in an atmosphere of friendliness and cooperation. These sessions are unscheduled, but generally take place once every four to six weeks.
APPENDIX C
CASE STUDIES

Case Study #1

This young man, nineteen years of age, had all the appearances of a typical hippie when he came to the Work Opportunity Center. He had long hair and was unshaven. Others called him "red beard" for obvious reasons. But he was basically clean and although he perhaps tended to be peculiar in the eyes of some, we thought there was some potential.

In his past there seems to have been much to confuse him. There were home problems which resulted in divorce and subsequent problems. He had been shunted back and forth from public to parochial schools and had moved several times so that by the time of his dropping out he had been in nine different schools, had had foster parents, and had lived in a children's home. During these early school years he was described as immature, bored, needing special attention, unpopular with other children, having an advanced vocabulary, wasting much of his time, needing firm guidance but not getting it at home. A pattern of much absence began to develop in elementary and junior high school and he was cited as possessing psychological problems. He generally scored low on all personality rating scales. Although he had potential for much greater effort, his achievement grades were only average to below average. He attended three different senior high schools, one in another city where he was sent to live in a children's home. Again there was much absence. In his final semester before dropping out of the 11th grade at age 17, he was described as quiet, very reserved, but always a gentleman.

During the interim year and a half he had drifted into the hippie way
of life. He had tried L.S.D., the kicks and was searching for reality. There were no strong home or family ties, and he was living away most of the time. Many times he came to the Center hungry, or after having slept in a car the night before.

He came to the Center wanting English - he wanted to be a poet or free lance writer. He continually wrote poetry, some fairly good. But English classes were full and while waiting, he decided to take Graphic Arts.

He attended well, three hours per day for about ten weeks, gathered the basic skills, and was a satisfactory worker.

Perhaps the most critical incident which enhanced his interest was his publishing of a number of his original poems. He printed a booklet of which he was very proud. There was slow progress as we sought to change and shape some of his attitudes. One day, after one of several conferences which included the work coordinator, he showed up clean shaven, with a hair cut, and very presentable. We immediately took him out and he obtained a good position as a multilith operator with a local industry. The young man was overjoyed and was most grateful. He was so appreciative that he almost broke up emotionally before us. Later he went on to pass the GED exams and obtained a high school diploma. He continues to work full-time and has a promising future.

Case Study #2

This youth was older than most of our students. He was over twenty, a high school graduate, and was married. But like so many of our high school graduates, he had no specific occupational skills to recommend
him to a job with a future. Furthermore, his high school attendance and academic record would not place him among top contenders for choice starting positions. Up to this time he had a fairly good employment record and had an active interest in mod music. As a matter of fact, he had his own band in which he played drums. But at twenty years of age he was beginning to think more seriously and realized that he wasn't going as fast toward a useful career as his circumstances demanded. The young man had increasing responsibilities and was at a point in life where he needed to make a decision in the direction of further education. He chose to come to WOO where he began to explore Art, Machine Shop and Offset Printing.

It was a wise choice. His attitudes were good from the beginning and in a few weeks of concentrated effort he was performing the basic operations quite acceptably. He received personalized instruction and in most procedures required only a minimum of practice. His enthusiasm was displayed by excellent attendance of approximately three hours a day for eight weeks, and in the fact that he brought two friends into the Center. He was also a great help in assisting us to orient new students into routine procedures. He could read, understand and follow directions, both written and oral, and had a great deal of mechanical aptitude.

Placement for this kind of young man was easy. The work coordinator placed him as a multilith operator in a large local business. It was not long afterward that the boy moved upward to larger responsibilities within that organization. Meanwhile, an apprenticeship opening occurred in a local newspaper plant. This was a choice opportunity and we urged him to apply. He did apply and was offered the position. However, his employer countered with an appealing offer that he decided to accept. Needless to
say, this young man has experienced some outstanding successes.

Few of our youth are as ready and able to accept training and employment as this young man. In most cases, student attitudes toward self and toward the world of work are not as conducive to rapid advancement in the training situation as in this case. But they all need opportunity for success such as we endeavor to provide at the Work Opportunity Center.