

possible to the extent that we are able to bring these innovations within the reach of all.

The number of people in this country employed in making products, which are not classed as absolute necessities of life, is larger today than ever before. Only approximately 30% of our people are engaged in the production of the necessities of life. It is absolutely

necessary, therefore, for us to bring down the cost of the so-called non-essentials as a method of keeping all of our people employed. It is necessary for each individual, whether he is an industrial worker, manager, or stockholder,—no matter what his position in industry may be,—to view this continual change that is taking place as a sign of progress.

The Study of the Individual

C. S. YOAKUM

Vice-President, University of Michigan

People work in many different occupations in order to supply us with goods and services which make life happier and more comfortable. In any one of these occupations there are thousands of persons at work. It is important to remember that, in some measure, each one of these persons selected the work he is doing because he felt he could do the work well and would be happy doing it. Also, selecting one's future occupation is a personal problem which every young person must finally settle for himself or herself. I am to talk to you a few minutes about the things you ought to learn about yourself before choosing your own occupation.

Selecting an occupation is a process of self-discovery, combined with learning the nature of the occupations that people are now working in. When you have found out what sort of person you are and know something about the occupations in which you are most interested, then comes the fun as well as serious work in matching different jobs with your abilities. In what ways are the things you do best and most easily similar to the things done by either the

musician, the engineer, the salesman, the merchant, or the lawyer?

People have been classified in many different ways. One of these classifications that has been very suggestive in helping persons to study themselves was given by Professor Thorndike a number of years ago. In a broad way he thought that some folks like to work mainly with ideas and to make few contacts with people and to be less active with their hands. A second group obtain their greatest enjoyment and satisfaction out of working with other people. They like to aid others in advancing themselves, or to direct the activities of others individually or in groups. A third group of people are more interested in doing things with their hands.

There is no sharp division among these three groups. Nor is there a sharp division among the corresponding occupations. Nevertheless the great fields of teaching, of law, of politics, of literary production, need people with ability to express their ideas in words. The sciences, production of manufactured goods, engineering, and many business occupations need those who can use

abstract symbols expressing relations of ideas of quantity and of accurate measurement. All social services, including medicine, the ministry, and teaching, need those who are deeply interested in the welfare of others. The physically active group that likes to move about or work with their hands will find their interest in the outdoor occupations, the mechanical fields, the various fine and applied arts. We see that these three large groups of activities or interests often overlap and they overlap more frequently in the higher professions than they do in the simpler activities of the foreman or the accountant or the mechanic or the house-to-house salesman.

In order to examine your abilities in detail and to make a personal judgment regarding which of these major groups of activities is most suitable for you or in which you would be most interested, it is necessary to make a grouping of your own activities. This division is frequently made as follows: first, what has been your achievement in school, in your outside activities about the home, and among your fellow students? How successful have you been? Second, have you found any forms of activity at home, in school, or elsewhere which seem to be very easy, or too hard, for you? Third, what special things have you done which have been of greatest interest and which you felt you would like to keep on doing all the remainder of your life if they brought you into contact with people whom you liked and enabled you to make a decent living? Fourth, how have you impressed the people you have lived with thus far? Before making a decision, you must examine yourself by means of careful answers to questions like the above and by means of special types of tests which you can find out about through your local schools. Many

of these tests and self-study forms are now described in books you can get in your local library.

In the first place, your school counselor or some specialist in an adult education group will help you find out the way you have progressed in school. They will aid you to discover what subjects have been most interesting to you, not because you liked the teacher nor because you liked the students who were in the class, but primarily because you were interested in learning what the subject had to give you. Do not depend entirely on your grades. This discovery will be very suggestive of broad groups of occupations which may be open to you because of the relationship the subjects you like bear to those occupations. Your counselor will also be especially interested in those subjects which you have found relatively easy because he will believe that, having made good grades in them and having found them easier than others, you may have a special ability in those particular fields.

This suggests our second method of finding out your abilities. Practically every occupation is open to the boy or girl who has great intellectual ability together with supporting qualities. A very shrewd estimate regarding the level of your intellect can now be made by experts through the use of several types of tests. I am going to illustrate just one very simple form of such a test. Remember there are many other kinds all much harder than this. This is only one kind of test that makes you think. It is very simple. It is called the absurd statements test. Listen. "A Sunday in France. Ten years ago on a pleasant summer's afternoon in the middle of January, 1930, the twelve o'clock express from Scotland was rushing past the busy terminus of the Grand Central Station at twelve miles an hour." Do

you see how it makes you think to find all the statements that are wrong? There are many other tests of different kinds. They are graded so you can tell how far up the scale of intellect you are by the number and kinds you pass. If you can pass a great many and grade high, it would be absurd for you to select easy things to work at.

A great many boys and girls show very early that they have some special aptitude, that is, some are much better in music, or drawing, or arithmetic, or reading than the average of their class. Some get along better with their fellow students; or they not only have an interest in radio or other mechanical things but also develop readily and easily great skill in handling machinery or tools or instruments of various kinds. One of the things which the counselor or directed library reading can help you do, if you think you have one of these special aptitudes, is to aid you in discovering whether your special aptitude is due simply to some accident of having had better training, or better opportunities than others to acquire what you have already acquired. This may be the only reason why you are ahead of other boys or girls at this time. You will need very special advice and carefully made examinations in order to be sure that you do have a special aptitude for these things that you are doing well now. In order to be successful in a special aptitude one must be sure that he has it in considerable measure and is willing to work hard to develop it to its fullest extent.

A fourth factor which has a great deal to do with the selection of your occupation is your personality. Here you need to know how much energy you can expend without developing fatigue and lack of interest in your work. You will also want to know how easily you make friends and can discuss problems with

other people without irritating them. One of the most essential things in your personality is self-control. This means your ability to stick to a particular task in the face of immediate pleasures, to control your temper when irritated, and to keep on going in spite of discouragements. The school counselor and the expert psychologist can direct you to books and specialists which will aid you in determining whether you can develop so as to get along with people easily, or whether you will always be best satisfied by working more or less alone.

Other speakers in this program will tell you about judging occupations. It is important for you to consider the occupation apart from what any of your friends say. *You* are the one who must do the work and *you* must be satisfied in the work that is selected. You should, therefore, be certain what is your real reason for selecting any particular vocation. The story is told of one boy who was enthused by a cousin to plan to enter journalism. After conferences with his teacher and family and friends, it became very clear that he was much more interested in mechanical things than he was in literary production. He was starting to select his vocation on the basis of advice from a relative who was himself particularly interested in journalism. Another boy, whom I knew personally, spent two hard, disagreeable and unsatisfactory years taking pre-medical work, simply because a salesman with whom he got acquainted just before entering college persuaded him that medicine was the only thing in the way of a vocation. He is now a graduate engineer, very happily situated. Many stories of this kind are known to vocational counselors and they are therefore anxious to do all they can to prevent others from selecting a vocation on the basis of wrong reasons. All such information should

be used simply as a part of the whole study you are making to select a proper vocation.

To sum up, many of you have a number of years in which to plan for a particular vocation. In order to plan wisely, you should follow an outline similar to this one I have proposed. Here it is again in the form of questions:

Which do you like best, to think out things, to work with people or to be active with your hands? Rank yourself as a student, as a deep thinker, as a leader of men, as a great artist, or as an engineer. Are you unusually good

at some one thing? Are you energetic? Do you like people?

Every assistance that the school, or your parents, or people working in the community can offer you to help you get acquainted with your own abilities should be used in reaching your final decision; and, lastly, you must remember that all of these things are means of getting acquainted with yourself and knowing what your capacities really are. The problem of selecting a vocation is your problem and all the tests and interviews and study of vocations that have been suggested above are simply aids to enable you to select your vocation wisely and well.

Studying the Occupation

C. R. MANN

Director, American Council on Education

In the centennial year of 1876, a small boy just turned twelve was driving home from town along a country road with his father. At a bend in the highway there suddenly appeared before him the first road vehicle moving under its own power that he had ever seen. It rose in the sunlight, bumping and thundering down the road, like a splendid iron monster. Its heavy sides were a gleaming black. Its huge rollers rumbled ponderously. Smoke shot in a sooty cloud from its thick-set stack.

Before the horses had had time to become panic-stricken, the small boy was off his father's wagon and talking with the engineer. "Who made it, where was it going, and what did they use it for?" The engineer was very glad to explain the whole affair. This was an engine for driving threshing machines and sawmills. It was equipped with a chain that connected the power unit with the rear wheels so that it could

travel under its own steam. There was a belt attachment for applying power to a thresher. The engine made two hundred revolutions a minute and was governed by a throttle. It had been built by Nichols, Shephard & Company, of Battle Creek.

A small boy climbed back on his father's wagon and went on with the horses. But the trumpet had sounded and the issue was drawn.

It was young Saint George and the Dragon.

Charles Merz tells the foregoing story and its sequel in a recent book on this subject. He there shows how ten years later, when young St. George had grown to man's estate, he joined battle with the Dragon. For seven years he worked during the day to earn his living and struggled far into the night. Finally there emerged from his shop a benzine buggy that moved by its own power. His friends were amused