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General Clinical Counseling

In Educational Institutions

General Clinical Counseling

In Educational Institutions

by

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GENERAL CLINICAL COUNSELING

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To

MARGARET AND MARION

we gratefully dedicate this book

PREFACE

Counseling as a professional clinical specialty appears to be maturing. Fed from many sources, it is becoming a fruitful contribution to American life. It is bringing new vitality and growth to individuals and is unleashing new powers in institutions. On a massive scale, dealing with millions of men and women in World War II, psychologists matched the identified talents of people to the tasks of combat, supply, service, and training better than it had ever been done before. They invented new tools and techniques for the process and improved and sharpened old ones. They broke through the barriers of narrow subspecialties and petty jealousies and organized into teams. Behaviorists joined with gestaltists, personnel workers with rat experimentalists, school guidance workers with psychiatrists, semanticists with psychometrists, job analysts with psychoanalysts. These workers came together from schools and colleges, from the personnel departments of business and industry, from many divisions of local, state, and national government, and from mental hygiene clinics and hospitals. These teams drew into their work thousands of young people of all kinds and degrees of training and experience and gave them more or less intensive internships in theory and applied daily practice, in one or another aspect of clinical counseling.

So large and powerful was this effort that, when victory came and we were faced with the complex problems of conversion in an uneasy peace, it carried over and in full flood. Business and industry demanded the best possible service in the selection and placement of workers for "total production." Expanding civil service at all levels required the application of the improved tools of counseling to help fill their ranks with efficient workers. The readjustment of millions of veterans and the return of large numbers of them

to school and college under the GI Bill required educational-vocational counseling on a scale never before dreamed of in these institutions. As the crest of the veteran's wave passed, many of the large high schools and most of the colleges and universities found it necessary to continue organized counseling and employed many of the veteran's "advisers" and "counselors" on their own staffs. We had discovered that all the mighty efforts of war counseling supplied a firm empirical and theoretical basis for meeting the practical everyday problems of normal students and for improving educational processes.

In this book the authors have attempted to draw together and organize into teachable and comprehensible form the basic theories, hypotheses, and concepts of clinical counseling which developed and are developing out of the war and conversion effort. They have tried to collect, collate, and briefly describe the many knowledges, arts, and skills which seem essential to sound practice. To provide resources for extensive further reading, they have prepared bibliographies at the end of each chapter, bibliographies which seem to go on forever despite sharp pruning to leave only what seemed essential matter. They have drawn on their combined experiences in high schools and colleges, public and private, as teachers, advisers, counselors, administrators of student personnel programs, and general educational administrators, to illuminate both principle and practice. They saw that so vast and complex was this field in things to be learned, no single book could possibly encompass it. In the writing they found more problems unsolved than are solved, more questions than answers, and determined to make it panoramic rather than encyclopedic. Hence, after several attempts to prepare an illustrative, systematic case history and make an adequate analysis of it, they resorted instead to a long list of pertinent questions and left an "open end" case only to find that, in the classroom, it is a far more effective teaching device than a complete and "closed" one. The

reader will note other instances where closures could not be reached. In fact, the authors were driven to wish that they might carry on a continuing process of revision during publication and thereafter, so dynamic, fluid, and fertile are the researches and experiments now going on in clinical and educational psychology and so rich is the literature reporting these.

Some further effort has been made to clarify the structure and function of the field and to make its nomenclature somewhat more specific. Clinical psychology has wandered in a semantic wilderness for at least three decades. There has been prime confusion in interpretation of the meaning of such terms as "adviser," "psychologist," "counselor," "guidance" or "personnel worker," "psychiatrist," "psychoanalyst," and "psychotherapist." The conceptual fog deepens when these terms are qualified by such adjectives as "industrial," "vocational," "personal," "emotional," and "marital." Perhaps the present treatment may constitute one more step toward clearer meaning of terms and functions. It is hoped, at least, that the magnitude, scope, and complexity of *general clinical counseling* are made more explicit, its functions and limitations more sharply delineated, its differences from other forms of helping people with problems more sharply marked, and the extent and kinds of preparation, training, and development through practice elaborated. Some guide lines are suggested for the selection of candidates for the profession and for their placement by general field and level.

That there are *general clinical counselors* as described in this book and that they are carrying out the functions depicted is no fancy but fact, since they can be observed in action in a number of universities and colleges. Examples of such institutions are Boston, California, Denver, Illinois, Kansas, Maryland, Michigan, Minnesota, Temple, and Syracuse Universities; and the state colleges of Washington, Michigan, and Kansas. Such junior colleges as Stephens, the General College of the University of Minnesota, and

those at Bakersfield, Pasadena, San Bernardino, and Long Beach, California, have long had effective programs headed by skilled counselors. In the secondary schools, programs centering in general clinical counseling are to be found in Rochester, Niagara Falls, and Rockland County, New York; Long Beach and San Diego, California. Increasingly, moreover, cognizance is being given to high level professional counseling by such state departments of education as those of Arkansas, California, Delaware, and Vermont, which employ *general clinical counselors* to stimulate, establish, and guide the development in the schools, junior colleges, and state colleges. These examples are used merely by way of illustration and do nót begin to cover the ever-spreading organization of the work.

We gratefully acknowledge the help of many people in the shaping and completion of the manuscript. To Margaret Hahn and Marion MacLean, our wives, we owe the greatest debt both for their sustaining morale and for their practical labors. To Gerhard and Eleanor Ehmann and Herbert Fougner we are indebted for manuscript preparation and detailed criticism. Drs. George Angell, Dolph Camp, May Seagoe, Jessie Rhulman, Harold Pepinsky, Donald Super, Dorothy Clendenen, and Aubrey Berry have read the book in whole or in part and given us valuable criticism. To these, our thanks.

MILTON E. HAHN
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LOS ANGELES, CALIF.
March, 1950

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Chapter 1. COUNSELORS AND COUNSELING

Although claims have been made by numerous personnel workers for over two decades that clinical counseling is a profession, it is only in the past few years that the evidence has begun to support these claims. It seems not unreasonable to date professionalization from two events: the acceptance of the psychologist in his professional role by the military services in World War II, and the establishment of the professional diploma by the American Psychological Association in 1947. For a long period psychologists, sociologists, and educators have made largely fragmentary contributions to the science of predicting human behavior and to the art of helping individuals to help themselves in solving their personal problems. Numerous promising early probings led only to cul-de-sacs. Possible panaceas were "discovered" and reluctantly discarded. This trial-and-error process helped to eliminate some misconceptions and to point the general direction toward slow, but sound progress. The story of the development of any new profession is always dramatic, always worth telling. It is not, however the purpose of this book to recount the historical development of counseling as a profession. The tale has been, in part, well told by others, which makes more than a brief recapitulation here unnecessary.[1] The whole of it must wait for future historians.

[1] Paterson, Donald G. "The genesis of modern guidance," *Educational Record*, 1938, 1:36–46.

Myers, George E. *Principles and Techniques of Vocational Guidance*. New York: McGraw-Hill Book Company, Inc., 1941. Pp. 1–59.

Counseling, in its rise toward professional status, has paralleled the course of other professions. In its beginnings this movement was eclectic. It drew its tools and techniques from a number of related disciplines such as social case work, psychiatric practice, mental hygiene, educational methodology, and employment-office practices. For a long period in the secondary schools it tended to be tied almost solely to vocational education and still derives appreciable financial support from this relationship with the United States Office of Education. Beginning in the 1920 to 1930 decade, counseling drew materials from the expanding branches of differential psychology. These formed a basis for further research and became increasingly important after 1930. The mental hygiene movement contributed greatly to making the classroom teacher a functioning agent of student personnel work. The impact of work in psychotherapy upon the service of college instructors to their students hung fire and delayed longer than that upon teachers in elementary and secondary schools. Educational methodology, both administrative and classroom, was slowly incorporated into the counselor's kit of tools. Counselors at all educational levels drew their case history methods of record collecting from the social case worker during the period in which many of the special tools were being forged for the professional personnel worker in educational institutions. The period from 1920 to 1930 laid foundations for the next decade. One was growing acceptance of the need for, and the experimentation with, tools and techniques which were to prove fruitful in the expanding student personnel work of colleges and universities. Another was an increasing appreciation of the fact that human problems are never simple,

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Brewer, John M. *History of Vocational Guidance.* New York: Harper & Brothers, 1942.

Warters, Jane. *High-school Personnel Work Today.* New York: McGraw-Hill Book Company, Inc., 1946.

Williamson, E. G. *How to Counsel Students.* New York: McGraw-Hill Book Company, Inc., 1939. Part I.

never single cause and effect, but instead are so complex as to be beyond the grasp of naïve counselors, however willing.

As our understanding of problem complexity increased, the demand for better tools of diagnosis and treatment in turn called for counselors more and more highly trained in fields other than pedagogy. The counselor so hopefully described by Parsons' familiar classic in 1908, with his fund of common sense and brief period of training, no longer appeared adequate in the light of our deepening understanding of the problems of students. The need for common sense, uncommon as it is, remained; but even by 1930 there was an increasing insistence upon the college degree for the counselor. More and more, interested candidates for school personnel jobs were facing the realization that even the M.A. or M.S. degrees left gaping holes in their training picture. In the same decade the colleges and universities began demanding the Ph.D or Ed.D. of their major personnel workers, including the counselor. By the end of World War II this level of training was rapidly becoming the desired standard for key people in secondary school student personnel programs in the larger cities. The M.S., M.A., or M.Ed. degrees were becoming the minimal formal academic preparation for certification as secondary school counselors in more and more states.

Historical developments in reaching the professionalized status of the counselor are dismissed with this brief orientation. We turn to more specific aspects of our major topic, *counselors and counseling.* Our first discussion is concerning the nature of general clinical counseling, which will supply a frame of reference for the chapters which follow.

The Nature of General Clinical Counseling

Clinical counseling, as the term is used in this book, *is a process which takes place in a one-to-one relationship between an individual troubled by personal problems with which he has been unable to cope alone and a professional*

personnel worker whose training and experience have qualified him to aid others to reach solutions to various types of personal difficulties. The primary aim of counseling is to help individuals seeking solutions for personal difficulties to resolve or ameliorate their problems with a maximal degree of self-sufficiency. The counselor is not concerned with making decisions for the counselee. Rather *he seeks to organize learning situations* in such a manner that the counselee gains enough insight into the related causes of his trouble to permit him to select appropriate alternatives of behavior and action for his own best long- or short-term interests or desires. Differences among counselees in native endowment, formal education, emotional stability, and other factors often must force the counselor to be more or less authoritarian in the types of learning situations and outcomes which he organizes for counseling. Thorne has published an excellent discussion of these aspects of counseling.[2]

Although the literature concerned with counseling refers constantly to types of problems as if the rubrics *emotional, vocational, educational,* and *social* indicated discrete or clearly defined and markedly different problem areas, the truth is, of course, that these are merely labels of convenience. All are woven in a seamless web. Counseling must be concerned with the total dynamic adaptation of the individual. Lack of adaptation may, of course, arise from strains and conflicts in a particular area, such as selection of a course of study or a career, but other areas are related. It is impossible for the most highly trained counselor to conceive of an individual with a *pure* problem type which is not affected by other areas of living. A vocational problem, for example, often has as its causes poor socialization, emotional pressures arising in the home, egocentric anxieties, financial stringency, and a need for training in formal education. The distinguishing marks of professional counseling therefore include the following:

[2] Thorne, Frederick C. "Principles of directive counseling and psychotherapy," *American Psychologist,* 1948, 5:160–165.

1. Counseling is a professional clinical service. It is clinical in the same manner that general medical practice is clinical. So many variables enter into the lack of adaptation which troubles any given individual that we cannot emulate the engineer and assign constant values to any of these factors. Hence we cannot derive from them a formula which, when solved, yields a standard and unvaried solution to the problem. No variable in human adjustment problems carries the same weight for each individual nor for the same individual at different times. The patterns of variables are so many and so complex that an experimental approach in the traditional sense is an almost impossible one for the counselor. Long experience in counseling, together with a sound theoretical background, permit the counselor, by use of subjective experiential norms or "hunches," to estimate the composite number and strength of variables and to formulate learning situations which, for a unique individual over a given period of time, promise needed personal insights and resultant behavior which may lead to adaptation. The reader will find Symonds' distinctions regarding the meaning of the term *clinical* helpful.[3]

There are many clinical workers in the field of personnel work. Psychiatrists, psychoanalysts, case workers, psychotherapists, industrial and school psychologists, all are clinical workers. None of these can be designated as *the* clinical counselor. A clinical counselor working in a school, college, or university, however, approaches this distinction perhaps to a greater extent than do most of the others mentioned above. The reason for this is the practical necessity for diagnosis of student problems in all nonorganic areas and even in these the counselor often calls on the college health service for supplementary diagnosis in psychosomatic cases. The counselor in an educational institution will not, of course, attempt therapy in all adjustment areas, but he must make tentative diagnoses in order to refer his counselees to

[3] Symonds, Percival M. *Diagnosing Personality and Conduct.* New York: Appleton-Century-Crafts, Inc., 1931. Pp. 5–6.

other specialists for treatment. It is difficult to find a name for our general practitioner in counseling better than that of *general clinical counselor.* This usage follows Williamson[4] in part. While it is certain that no one person can master thoroughly all the tools and techniques of the clinical worker in counseling, the breadth of diagnostic and therapeutic skills demanded of him are such that he must be differently trained than is the psychotherapist, the vocational counselor, or the educational adviser. Warters[5] and Hahn[6] consider this problem of the counselor in terms of depth as well as breadth. Even though the general clinical counselor must work with counselees disturbed by many types of problems, he applies therapy of significant depth in those problem areas in which his major interests and competencies lie. In doing so all professional counselors worthy of the name are clinical workers. The differences among and between them tend to be qualitative and expressible in terms of the range and levels of therapy which they utilize with counselees having problems of varying complexity and depth.

General clinical counseling, then, is distinguished from other clinical counseling specialties—psychotherapy, for example—by the breadth of its specialization. This breadth is in large part the result of the peculiar demands of educational, business and industrial, and governmental institutions in which a number of different kinds of specialists cannot be employed because of financial and other reasons. Peculiar to these institutions also has been the need for diagnosticians who can accurately refer various problem types to other clinical workers for therapy. In these institutions there has been a tendency for the general clinical counselor to specialize in educational-vocational problems and to refer financial problems to the student loan agency, emotional anxieties

[4] Williamson, *op. cit.,* pp. 31–61.

[5] Warters, *op. cit.,* pp. 79–82.

[6] Hahn, Milton E. "Levels of competence in counseling: a postwar problem for student personnel work in secondary schools," *Educational and Psychological Measurement,* 1942, 2: 243–256.

and abnormalities to the psychiatrist, psychosomatic difficulties to the health service, stuttering cases to the speech pathologist, etc.

Another distinguishing mark of the general clinical counselor is the large number of clinical tools and techniques he must learn to employ for diagnosis. Because of the need for accurate diagnosis some of the tools of the psychotherapist, the social worker, and the educational and industrial psychologist must be understood and constantly used. The reader will have the opportunity to review these tools and techniques in Chaps. 4 and 5. They include, among others, sociometric devices, tests and measurements, projective devices, statistics, occupational information, and the interview. In contrast to *Rogerian** counselors and certain other groups of specialized psychologists, clinical counselors must make use constantly and rapidly of many types of significant data. Among these data are records of educational and vocational experiences both formal and informal; evidences of aptitudes and abilities in a gestalt of differential patterns; significant items pertaining to interests, drives, motivations, avocational pursuits, emotional stability under a variety of stresses, degree of socialization, temperament, physical and mental conditions, and physiological and psychological limitations; and the general impressions which give the component data their greatest and most valid meaning.

On an earlier page, reference was made to differential clinical weights which the counselor assigns to various data from case to case. The general clinical counselor does not differ markedly in this from his associates in clinical psychology. The items to which differential clinical weights must be assigned from case to case, however, tend to be greater in number for general counseling than for many other kinds.

* Non-directive counseling techniques have a long and honorable history. The special applications and implications given to this type of therapy by Dr. Carl Rogers and his associates are referred to in this book as *Rogerianism.*

This is another aspect of the "breadth of specialization" referred to earlier.

A final major distinguishing mark of the general clinical counselor is the tendency to have his professional foundations deeply sunk in differential psychology. This distinction is being reinforced by the rigorous certification for counselors of several types found in the requirements for diplomas issued by the American Board of Examiners in Professional Psychology. Their diploma in the "counseling and guidance" area is the one which best fits the general clinical counselor at the highest professional level.

In the announcement of the board of examiners regarding examination content for the counseling field of professional psychology, the following materials are listed:[7]

FUNDAMENTAL MATERIAL

1. Psychological knowledge in at least the following fields: learning; developmental psychology; personality dynamics; and motivation.
2. Tests and measurements, covering such topics as item analysis; reliability and validity; validation studies; norm groups; and data on representative psychometric devices and psychometric theories.
3. General experimental methods and sampling theory.
4. Statistics, covering such topics as central tendency; variability; tests of significance; correlation and factorial methods; and analysis of variance.

REQUIRED FIELD MATERIALS

Clinical. . . *Industrial. . .*

Counseling and Guidance

1. Background and development of the counseling and guidance movement.
2. Techniques of studying the individual for purposes of counseling—the individual inventory.

[7] American Board of Examiners in Professional Psychology. *Bulletin* No. 1, March, 1948. P. 2.

3. Techniques of collecting, classifying, and using occupational, labor market, and educational information.
4. Diagnostic techniques, terminology, and formulations, including educational diagnosis.
5. General techniques of interviewing and counseling.
6. Differential forms of psychological treatment, including remediation and re-education.
7. Follow-up and evaluation procedures.
8. Socio-economic and historical data regarding the educational system.

2. *Counseling is centered upon the problems and needs of the counselee.* Counseling which is not so oriented is meaningless. The purpose of counseling is to help individuals to help themselves, and *not* to have them follow any preconceptions or prescriptions of the counselor. Some confusion has been caused by the *Rogerian* school of thought in using the term "client-centered counseling." All counseling worthy of the name has always been so centered and the term is not the invention or sole possession of any particular group or school of thought. Hahn and Kendall,[8] Meehl and McClosky,[9] Wrenn,[10] and others have discussed and clarified this matter thoroughly and from several standpoints.

Even though the beginning counselor understands that his efforts must be directed at promoting learning and action by the counselee, it is often difficult for him to avoid focusing on method and information instead of on the counselee and his problems. Although sound and consistent counseling with clients having educational-vocational problems cannot be carried on without a comprehensive knowledge of method and a fund of pertinent information, the basic criterion of

[8] Hahn, Milton E., and Kendall, William E. "Some comments in defense of non-non-directive counseling," *Journal of Consulting Psychology,* 1947, 2:74–81.

[9] Meehl, Paul E., and McClosky, Herbert. "Ethical and political aspects of applied psychology," *Journal of Abnormal and Social Psychology,* 1947, 1:91–98.

[10] Wrenn, C. Gilbert. "Client-centered counseling," *Educational and Psychological Measurement,* 1946, 4:439–444.

counselor validity is the number of ex-counselees who have made adequate adaptation. The authors have never observed a counselor deserving the title who failed to meet this criterion.

3. Counseling results in counselee-made decisions. This characteristic of counseling is a basic one. If someone makes decisions for the counselee there results a chain-of-command process comparable to the discipline and direction of traditional military organizations. Counselee decisions ordinarily mean that the counselee is free to reject any activities proposed for him by the counselor at any stage of the process. He is free to doubt statements made by counselors, to reject any or all alternatives derived from the counseling conferences, and to refuse to accept any structuring of ideas or activity patterns which the counselor may attempt to impose upon him. In situations where the service and time of counselors are strictly limited by scanty personnel and crowded schedules, the counselee has a right, within broad limits, to set the counseling methods which he will accept. Because counselors in educational institutions have no right to reject a counselee who will not accept an imposed type of therapy, such counselors must be eclectic and flexible in their therapies and have a wide practicing knowledge of counseling tools and techniques.

Once a counselee has made decisions governing his plans for the future it is the obligation of the counselor to help him explore and clearly mark out the paths he has selected. This is mandatory even though the counselor may feel strongly that his counselee's decisions are not reasonable ones. In this case all that the counselor can do is to point out barriers and hurdles about which the counselee is not fully informed or into which he does not appear to have sufficient insight.

4. Clinical counseling is a one-to-one process. Clinical counseling must be carried on by one counselor and one counselee in complete privacy. Concentration upon the complex problem of an individual by a trained clinical counselor, the essential dynamic interaction between the two of

them, the confidential nature of their discussions, all demand isolation, quietude, and time. The presence of any "kibitzer" whatsoever, no matter how casual or how interested, changes the whole structure of the process and usually destroys its effectiveness. This is clear because counselors who have counseled many hundreds have never found two cases identical. Each problem needs to be thought out and talked out uniquely. An alien listening ear, the mere presence of other personalities, the buzz of voices, or the rattle of typewriters will invariably set up interference that wrenches, distorts, and distracts clear thinking, clean-cut analysis, and tempered emotional rapport between counselor and counselee.

It is essential, therefore, that we avoid confusion of concept and terminology when we read or hear of "group therapy," "group guidance," and even of "group counseling." The literature is full of naïve nonsense about all three. To talk of "group counseling" and to imply that it is similar in structure and outcomes to one-to-one clinical counseling is as silly as talking about "group courtship." There is, however, such a thing as "group guidance." Essentially this is a teaching process which may, in part, prepare some or all of the individuals in a group for clinical counseling. Thus, for example, it is possible to take twenty or thirty high school boys who think they want to become medical men, and, by competent teaching, do much with them to strip away their fantasies about "Men in White" or "Young Doctor So-and-So" and replace these illusions with realities. The teacher can give them a general picture of the 100 or more jobs within this broad field, of the "families" into which such jobs cluster, of general requirements in terms of ability, interests, aptitude, and attitude for each, of the cost and length of training for each level, of the hazards and the rewards possible. By so doing he may make some or all of these boys considerably more ready for clinical counseling on their individual problems of career selection.

"Group therapy" is something quite different from either

the teaching process of group guidance just discussed or clinical counseling. In fact, it is often used as one of his therapeutic tools by the clinical counselor and usually follows his diagnosis instead of preceding it, as does group guidance. In general, group therapy may be said to be a process whereby a client is helped to clear up his own difficulty by teaming up with others who are recovering or have recovered from similar troubles. This is the principle on which Alcoholics Anonymous operates. It is demonstrated again in the therapy administered to victims of spastic paralysis when they exercise and swim together and overcome slowly not only their physical but their emotional and attitudinal handicaps. It is commonly evidenced in schools at all levels when a counselor or wise principal arranges to put a shy and withdrawing student on a committee or with an athletic or theatrical group of friendly classmates who will support him in developing his talents, give him a feeling of success and of being wanted, and thus mitigate the anxieties that have previously led him into isolation and loneliness.

5. *Clinical counseling must be based on the accuracy of counselor prediction.* The literature of counseling contains much which pertains to the reliability and validity of the counselor's tools. However, it seldom mentions the really important statistics, which deal with the reliability and validity of counselor X. Few data are collected on records or by other means which cannot be, and are not, used for purposes of prediction. Past academic grades are, for example, one of our best indices for future academic grades. The home address is often an indicator of socio-economic family status. Possession of a telephone, books, typewriter, and phonograph record collection in the home gives further information from which predictions for the future can be made. Participation in various types of activity in the past permits prognostication for the future. Scores on tests of ability become indicators of potential development in years ahead. It is difficult to conceive of any datum which is not

useful, in one way or another, for the prediction of future behavior.

This does not mean that the counselor predicts in the sense that he tells the counselee what he will or must do in the future. On the contrary, the freedom of the counselee is not affected by the fact that the counselor predicts. Rather the counselor predicts in order to establish the reliability and validity of his use of counseling tools and techniques. One of the best methods for determining counselor competence, then, is to discover whether or not his case notes provide prognosis and follow-up studies give corroboration which permit the establishment of a "batting average" of successful cases for him. Super[11] states that "So-called . . . prediction is therefore not, in reality, a prognostic act, but rather a counseling process in which counseling means not giving advice but helping to understand, to plan, and to act accordingly."

Unless the counselor provides prognoses and estimates of the results of the various alternatives for action selected by the counselee, follow-up procedures lose much of their meaning. To himself, the counselor says, "If Mary does this, the evidence indicates that the result will be. . . . " This statement should be recorded in order that follow-up may demonstrate to the counselor the validity of his judgments. In fact, a willingness to accept an individual for counseling constitutes a tacit prognosis by the counselor of a successful outcome of the case since, if indices are neutral, negative, or harmful, he will refuse to handle it. If the correlations between and among these predictions and follow-ups are not appreciably greater than chance there is a grave question as to whether or not the counselor in question has any right to remain in practice!

In the foregoing pages the stage has been roughly set for consideration of the next topic, how counselors are trained

[11] Super, Donald E. *The Dynamics of Vocational Adjustment.* New York: Harper & Brothers, 1942. P. 128.

to perform the functions expected of them. Emphasis is given to the need for professional training in order that we do not confuse the functions of the academic adviser with those of the counselor. We turn now to consideration of the methods by which candidates are selected for counselor training and the major aspects of their training.

The Selection of Candidates for Counselor Training

The problems of selecting trainees for that branch of clinical psychology with which we are concerned differ markedly in one respect from the selection problems faced by medical and other established professional schools. One can no longer practice medicine or law unless certain legal barriers designed to demonstrate competence have been surmounted. The counselor, on the other hand, at present has few such legal barriers to face. Nor does he yet acquire standardized legal status. If the successful candidate is to practice in an educational institution, his first amateur attempts at counseling often are made prior to any appreciable amount of professional preparation. The pool of candidates from which counselors are drawn includes many individuals working as subject-matter teachers or administrators in a high school or college. Such individuals, disappointed or upset by their frequent failures to help students (in spite of some encouraging successes), are awakened to their own ignorance and lack of skill. They try to patch up their weaknesses with a course here, a summer session there, and by reading, visiting clinics, and attending personnel meetings. They make clinical counseling a professional goal only after such experiences initiated by purely fortuitous circumstances. Nor is this an entirely bad state of affairs. Until such time as a number of states develop accreditation of counselors, at a level well beyond any now required, and until training institutions supply properly controlled internships, amateur practice on real students in quandaries may

well be our best substitute for the more desirable practices toward which we are working.

Our first step in selecting candidates for training as professional counselors is identical with that in most professional colleges—the assurance that the trainee has cleared the academic hurdles which precede admission and which give evidence of power to perform in classwork until the stamp of approval is put upon him by the training institution. Because advanced training for counseling is at the graduate level, we can have more data based on past academic behavior than have the undergraduate professional colleges such as engineering. However, medical schools facing the same condition have had and continue to have their difficulties in avoiding selection of candidates who later "wash out." Moreover, at the graduate level we are handicapped by the as yet small number of test instruments which will permit reliable and valid measurement of highly complex academic ability. The Graduate Record Examination[12] and the Miller Analogies, Form G,[13] are two of the few instruments which have so far been helpful in making decisions regarding the prospective trainee's academic potentialities. A further proof of academic competence to work at or near the doctoral level is the practice in some universities of placing candidates on probation until they have proved their ability by performance. This method is practical from the standpoint of the institution but is not always acceptable to the student. Even when the probation method is used, the college or university has an obligation to students to utilize every reasonable precaution to prevent them from attempting tasks which are, for them, overdifficult or impossible. Our primary selection, then, is based on the candidate's estimated ability to compete with doctoral candidates in the social and natural sciences. This aptitude

[12] *The Graduate Record Examination.* New York: Carnegie Foundation for the Advancement of Teaching.

[13] Miller, W. S. *The Miller Analogies,* Form G. New York: Psychological Corporation, 1947.

must be determined, for the most part, in terms of past academic achievement, tests designed to predict further academic success, and a probationary period which determines whether or not past performance and test scores have predicted with fair accuracy.

The second problem in selection is that of determining whether or not the individual has the interests, motivation, attitudes, and persistence which will lead him to a personally satisfying goal in professional counseling. These factors, of basic importance to the successful applied psychologist in the field of personnel work, are being studied by several investigators, but we do not yet have sufficient evidence to give us more than a few clues. Perhaps the experience in other professions must be paralleled by counseling, in that, despite our attempts at careful selection, an appreciable proportion of those who successfully complete training will enter related fields rather than the general clinical one for which they were prepared. The statement of the candidate and the cautious use of such instruments as the Strong Vocational Interest Blank,[14] plus the composite interview impressions of the selection staff, must, for a while at least, remain our chief methods of assessing these primary qualities in candidates.

The third basis for selection is that of estimating the personal acceptability of the candidate, of taking a look at what the layman calls his "personality" This criterion is at least as important as the others. The person planning to work intimately with large numbers of individuals who need to have the utmost trust in him must inspire great confidence. Not only is this necessary, but a feeling of counselee confidence must develop in a relatively short period of time. Many a counselee will open up his difficulty wide and deep in a single conference if the counselor has the personal characteristics of warmth, receptivity, objectivity, understand-

[14] Strong, Edward K., Jr. *The Strong Vocational Interest Blank* (men and women's forms). Stanford University, Calif.: Stanford University Press, 1938.

ing, and tolerance. The selection of candidates for these characteristics depends, for the most part, on observation, on interviews, and on ratings from those others who have known and observed the candidate in a variety of situations.

Positive selection must, of course, be accompanied by negative selection. It seems to be a truism that many persons quite unfit to manage their own affairs hunger to advise and counsel others on the management of theirs. These frequently clamor for admission to training for clinical counseling. Their argument is that "only those who have been through deep and complex trouble can extricate others." It is somewhat like the old notion that no one could be a great painter, singer, or actor until he had had his heart broken. The authors have seen many graduate students in psychology and education, although themselves floundering miserably in the toils of harassing anxiety, a compulsive neurosis, or an ambulatory psychosis, struggling to win admission to training for clinical counseling. Too frequently they have been successful because, no matter what their emotional tensions, they still possessed high scholastic competence. Some of these are passionate "do-gooders" with rigid and unachievable ideals and standards to which they would like aggressively to force counselees to conform. Some are beaming optimists, "back-slappers," and "cheerer-uppers," who, no matter how severe a student's problem may be, persist in treating it with joviality and such slogans as "It will all come out in the wash," or "Time heals all," or "Hard work and virtue dissipate all difficulties." Others are grim and lugubrious; a counselee's request for a simple course change leads them to issue storm warnings and predict dire consequences. Still others, having half read a bit of Freud, tend to view all student problems as stemming out of sex conflicts, suppressed desires, or complexes. Any of these, unless first healed by therapy and then thoroughly trained, seem at worst dangerous and at best ineffective. Much of the professional and lay criticism of personnel work arises directly out of their attitudes, be-

havior, and writings in the field. Hence every effort must be made to steer them away from it.

We are asking, then, that a very careful selection be made in terms of academic ability, interests and motivation, and more than a modicum of personal and social acceptability. In addition there are other traits which are desirable but which are even less amenable to present standard tools and techniques of such selection. Among these other necessary, or highly desirable, characteristics are emotional and social stability and poise, a liking and aptitude for hard work, and knowledge of scientific method and conviction of its values, as well as the requisite interest in people. When we combine these characteristics in one person, our model candidate will be a relatively rare individual. Nevertheless, the person who wishes to enter the field of professional counseling should assure himself that there are no gaps or relatively great weaknesses in his personal pattern of aptitudes for this profession. It is even more important that the graduate institutions which offer training in the field ensure that doubtful trainees are not admitted to training or, if admitted, are soon directed to other more suitable occupational preparation.

As will be discussed in the next section of this chapter, there are a number of levels of counseling and advising. Many individuals who do not prove acceptable candidates for the high professional levels of counseling can, and do, perform excellently in one or another of the less demanding branches of personnel work. With these differential levels of counseling and advising competence in mind we now turn to the training of those personnel workers whose major functions are in general clinical counseling.

The Training of the General Clinical Counselor

As has been indicated in the opening pages of the book, counseling has very recently achieved the status of a profession. One universal factor of recency is difficulty in get-

ting financial support for the new activity in competition with older ones and within the limitations of normal budgets. Those of educational institutions are especially inflexible and unsusceptible to proposals for large new expenditures. Therefore, counseling has a hard row to hoe in the academic world. The continuum of working with individual differences, beginning with individualized classroom instructional techniques and continuing through depth therapy with deep-seated emotional problems, requires a number of workers, many with long and costly training, to perform the varied functions from the simple to the complex. Thus, since few institutions can yet afford a full program, it is clearly indicated that our discussion of the training of counselors must consider the whole range of contributors to the counseling process even though the majority of them are not clinical counselors.

A further complicating factor in treating the subject of counselor training is that of residual pools from which candidates for the next step toward professionalization must be drawn. From this pool of interested graduate students and teachers a minority continue along the training trail. A small proportion of those who started finally achieve the doctoral degree. Even when the formalities of degree requirements are met there is as yet no official licensing, or certifying of competence, required for practice in the schools or, with minor exceptions, in private practice.[15]

Even within the ranks of clinical psychologists there are three major areas of practice, each demanding a somewhat different type of training in addition to the differing interests and motivations of the practitioners. These specialties are *industrial psychology, psychotherapy,* and *general clinical counseling* usually found in educational institutions and less often in special clinics on marriage and family relations or in institutes attached to churches, YM or YWCA's, and the like. Discussion of two of these types we shall leave to

[15] Steiner, Lee R. *Where Do People Take Their Troubles?* Boston: Houghton Mifflin Company, 1945.

others and limit our concern to the general clinical counselor in educational institutions and the levels of competence within this group.[16] We discuss levels of professionalization under the headings *advisers, administrator-counselors,* and *general clinical counselors.*

The Adviser

The majority of instructors in educational institutions have advisory responsibilities. Many of these are quite routine and attempt to accomplish no more than to interpret rules and regulations, clarify specific course requirements, or direct students to a remedial course or readings in methods of becoming academically successful. The portion of the advisory group which has the time, or cares, to interest itself in the personal, nonacademic problems of students is nearly always in the minority. This is not necessarily a sign of either cold-bloodedness or indifference. If the instructor is in a secondary school, the number of class periods and the large enrollment of students, plus the load of necessary extraclass duties, are such that it would be difficult for him to know all his students even fairly well. When to teaching he adds clerical chores, committee assignments, essential extracurricular duties, and the demands of reading, study, and attending meetings for professional advancement, there remain scarcely enough hours in the day for other important parts of living a normal life. The college instructor carries much the same load as does the secondary school man except that it is distributed differently since his hours spent in classroom work are fewer. Moreover, professional advancement in college teaching is geared to research and publications as well as to teaching. Many college instructors feel,

[16] Hahn, *op. cit.*
Warters, *op. cit.*, pp. 25–30.
Williamson, *op. cit.*, pp. 36–56.
Williamson, E. G., and Hahn, M. E. *Introduction to High School Counseling.* New York: McGraw-Hill Book Company, Inc., 1940. Pp. 78–80.

therefore, that they cannot afford to spend large amounts of time with individual students. This was true even in the halcyon days, when the ivory tower still maintained a bit of reality and classes were small and college life presumably intimate and leisurely. In recent years, with the growth of enrollments in higher education, huge classes have made student advising in the rose-colored, traditional sense of the small college an impossibility. One of the greatest continuing problems in personnel work at the college level is to discover methods by which individual attention can be given to masses of students. Evidence is clear that the answer does not lie in asking or expecting teaching and research faculty to solve the personal problems of students by means of unlimited conferences with all who seek help.

Nevertheless, the classroom, laboratory, and field teachers perform important personnel functions. A few of them, usually at the sacrifice of personal advancement, become excellent amateur counselors because of warm interest in students, a flair for giving "common sense" advice, and possession of the patience to listen. Every educational institution has, and has had, these individuals on its staff, and they are often the most revered and best remembered of the lot. Instructional workers can contribute in other ways. Perhaps their most important function is to supply sound and pleasant learning situations. Their creation of a classroom atmosphere which both stimulates the students and makes them feel at home and at ease, as well as important to themselves, is a real contribution to counseling since it prevents or ameliorates many frustrations. Another effective aid to counseling rendered by instructors is the spotting of students who appear to need more than routine or casual help with problems. This does not mean that the instructor himself gives the counseling, but rather that he takes responsibility for getting students in trouble to the best available sources of help. In addition, institutional regulations and necessity usually require that the instructional staff assist students in making their programs and in conforming to

established formal educational patterns. There is also a common practice of utilizing the services of instructors in programs of group orientation to these patterns and to organized college life.

From all this, it is obvious that the instructor who becomes an excellent teacher in his field and performs the other functions outlined above does not need formal preparation for student-personnel-work duties; he should have counseling insights and understandings, however, and these can be partly attained by some formal training. The advisory personnel worker should be increasingly acquainted with elementary principles of mental hygiene. He should have enough understanding of the symptoms of abnormal behavior to be able to identify students approaching trouble. He can acquire such knowledge through reading and observation, but inclusion of graduate course work in the field of mental hygiene or elementary psychotherapy can be useful to him as part of the complex of his training and his growth as an adviser.

Any knowledge an instructor may obtain of the tools and techniques of the counselor will be helpful to him also in his advising. He can learn something of the established interviewing practices necessary to successful dealings with students. He will find that any understanding he may gain of the purpose, methods, and interpretation of tests and measurements will equip him better to deal with his students. Increasing use of standardized measuring instruments has made understanding of them important at all educational levels. Likewise, the more he can familiarize himself with the growing knowledge of study skills, time budgeting, and techniques for improving reading of different sorts, writing of academic papers, and speech, particularly for recitation and class discussion, the better. He may achieve increasing integration of tool and technique uses if his institution is wise enough to build an in-service training program for him and his colleagues. Such in-service training may range from an occasional informal meeting of advisers, clinical counselors, and health service doctors

to review student problems and their handling, to full-panoplied clinical sessions devoted to reviewing all the ramifications of a single case, sometimes with the help of outside specialists invited in for the purpose.

With this brief summary, we are compelled to dismiss the instructor and his normal personnel functions because the writers are convinced that being a "good" instructor is in itself an important contribution to student personnel work. With clocks and calendars as demanding as they are, there are few individuals in educational institutions who have time or energy for more than the functions assigned them. The classroom teacher is an important member of the personnel work team but he cannot be groundskeeper and pitch from the box at the same time.

Administrator-Counselors

This terminology is used because it seems to supply the shade of meaning desired better than such commonly used general terms as *guidance worker* or *school counselor.* The usual pattern of professional progress in secondary schools is from *teacher-counselor* to *administrator-counselor.* Most secondary schools have no professionally trained general clinical counselor. A number have one or several teacher-counselors, who split their time among individual counseling—usually only of "problem" cases—minor administrative duties such as record keeping or contact with parents and attendance officers, and teaching a class or two. Some schools thus acquire what amounts to one full-time counselor for several hundred students. Perhaps, more often than not, these duties are assigned to a vice-principal or assistant principal appointed for the purpose, or a teacher-counselor is given the title with or without additional salary. In a small but increasing number of state departments of education and of county or large city systems, these workers are supplemented by one or more guidance supervisors, who drive from school to school, carry on some in-service training of the teacher-counselors, handle some

special and difficult cases, and coordinate the activities of teacher-counselors, school doctor, nurse and dentist, probation officers, police, juvenile court, and the central child guidance or mental hygiene clinic. Only larger schools, supported by a relatively wealthy community, have more than one full-time clinical counselor; and the mode of professional preparation for many of these leaves much to be desired. As the more able and professional members of the teacher-counselor group absorb additional professional training and gain experience they move into the competence level which we designate as *administrator-counselor.*

The usual system of obtaining professional training for these part-time, full-time, and supervisory jobs is to complete, one after another, graduate courses in summer sessions; to take late-afternoon, evening, and Saturday seminars during the academic year when a university or college is near enough; and to participate in workshops and in-service training programs staffed locally by faculty members from a nearby college or university. Appointment as school counselor, director of guidance in a school, or guidance supervisor for a system comes frequently an appreciable period of time before completion of formal graduate training even to the master's degree level. Many, even so, perform their duties with high efficiency. Steady progress is clearly evident however much perfectionists may condemn these present processes and desire a clinical counselor trained to the doctorate level in every school.

The most useful pattern of training for these student personnel workers may be arrived at by an analysis of the duties usually performed. One of several similar analyses and sources of information about duties of these administrator-counselors is the *Practical Handbook for Counselors* by Hutcherson, Smith, *et. al.*[17] This source lists among other major responsibilities the following:

[17] The New York State Counselors Association Committee, Hutcherson, George E., Smith, Charles M., *et al. Practical Handbook for Counselors.* Chicago: Science Research Associates, 1945.

Interviewing individual students (counseling).
Performing clerical duties involving selection, preparation, and maintenance of records.
Making case studies of individuals.
Planning and directing group activities.
Setting up orientation programs for the school adjustment of students.
Planning academic programs.
Assisting students to make vocational choices.
Aiding students in making educational choices.
Planning and directing follow-up studies of out-of-school youth, graduate and nongraduate.
Running both temporary- and permanent-job placement offices.
Helping administration to maintain good relationships with parents and community.

When ten to fifteen hours of teaching a week is added to most or all of these duties it obviously becomes nearly impossible for an administrator-counselor to do more than a trouble-shooting job of clinical, one-to-one counseling. Maynard[18] gives a clear and discouraging picture of what happens to many administrator-counselors in the smaller secondary school. Her itemization of what absorbs the counselor's time demonstrates the "chore-boy" quasi-administrative concept of the work held by some school adminstrators. However diffuse and dispersed their efforts may be, they are, nevertheless, more effective than strict mass regimentation and total neglect of individual needs.

Two examples of the better types of training programs for administrator-counselors are the requirements established by the Province of Ontario[19] and by New York State[20] for counselor certification. The curricular structure of the two is similar. The chief difference is that the Provincial Depart-

[18] Maynard, Ruth C. "Need for improvement in counseling procedures," *School Review,* 1945, 53:530–533.

[19] Provincial Requirements for Counselor Certification, Provincial Department of Education, Toronto, Ont., Canada.

[20] New York State Requirements for Guidance Certificates, State Department of Education, Albany, N.Y.

ment of Education itself provides the graduate training in Ontario for those selected as candidates. New York State's similar requirements for permanent certification are as follows:

Course title	*Semester hours*
Principles and techniques of guidance	6
Studies in educational and occupational opportunities	4–6
Methods and materials for groups	2–4
Mental hygiene	2–4
Educational or mental measurements	2–4
Psychological tests in guidance	2–4
Graduate economics	2–4
Labor problems (graduate level)	2–4
Graduate sociology	2–4

Reviewing the above, one may draw several conclusions. First, even though this schedule of courses, if well done, takes a candidate to the master's degree, he has just crossed the threshold to becoming a sound clinical worker. It is obvious that when these requirements are met—and a dismally small number of administrator-counselors meet them—he does not have more than a nodding acquaintance with any but a few of the tools of the professional, psychologically trained, clinical counselor. Instead, such a training program, copying undergraduate work in education or psychology, seems to ready him for the instructor-administrator-adviser, "Jack-of-all-trades" pattern of duties.

The general picture is not so dark as this summary would appear to indicate. If we go behind this minimal training program, we find in many of the country's secondary schools administrator-counselors who are relatively competent through self-training and experience. Many brainy, able, and sensitive men and women, possessing the aptitudes described earlier and having been inadvertently chucked into administrator-counselor jobs, have grown year by year in knowledge, insight, and performance. Colleges and universities have contributed staff time to these people. Many counselors, without setting the Ed.D. or Ph.D. degree as a

goal, continue their formal training by taking courses to fill gaps in their competence. They join professional associations, attend meetings, work on committees, furnish materials for research projects, build up personal libraries, subscribe to journals. Because such people are increasing rapidly in number, in almost every state certain secondary school programs stand out because of their excellence and despite obstacles in the form of insufficient budgets, administrative lack of understanding, and a backbreaking overload of work. Because of them, too, the demand for advanced training and better leadership has already run far ahead of training opportunities provided by graduate schools and has moved beyond the minimal requirements of state departments of education.

General Clinical Counselors

In discussing the training of general clinical counselors, the authors have no intention of suggesting a rigid and meticulous set of patterned requirements. The form used, describing two levels, is employed merely for clarity and convenience. Limitations of present knowledge are recognized as well as the fact that, in any activity as fluid and dynamic as counseling, overlappings, extensions, and sometimes radical changes are bound to occur as research, practice, and evaluation continue.

General Clinical Counselors—Level I

The individual who is described as a *clinical counselor—level I* is one who has followed a training program leading toward full professional status as a clinical psychologist, with little or no work in preparation for the administrative functions of the *administrator-counselor.* These individuals have completed the master's degree, or its equivalent, in applied psychology and related fields. Many counselors in the college and university fields and in governmental service, especially in veterans' advising, and some in business and industry, are at this level. Secondary schools, largely because

of the nature of their academic and administrative programs, already described, have not as yet offered occupational outlets for persons so trained on any large scale, but the demand is increasing not only in the general field but in developing special programs of remedial and rehabilitation work, usually on a state-wide basis.

Just what graduate course preparation and in-service training these people have had or should have is still largely a matter of conjecture and experimental tryouts of various patterns of courses and clinical and observational procedure. At the present time, the chief determinant appears to be the judgment of counselor trainers in graduate schools. Agreement is found in broad areas. The general clinical counselor at this level is expected to have much more than casual familiarity with differential psychology, statistics through the intermediate courses, mental hygiene and psychotherapy, psychometrics, counseling tools and techniques. He should have some basic courses in education capped by a year or so of classroom teaching and increasingly supervised observation of clinical practice; and, wherever possible, internship in the particular kind and level of counseling in which he hopes later to be employed. A typical graduate course of training upon which there may be general agreement is offered below.

Course title	*Semester hours*
Introduction to counseling	3
Psychology of individual differences	3
Elementary statistics	3
Intermediate statistics	3
Mental hygiene (introductory course in personal adjustments)	3
Counseling and psychotherapy	3
Tests and measurements (with laboratory)	3
Tools and techniques of counseling	3
Psychological bases of aptitudes and abilities	3
Psychological bases of educational-vocational interests	3
Occupational information and technique of placement	3
Evaluation of counseling	3
Observation, internship, and in-service training	3–15

Perhaps the most important and still least developed part of this program is that of observation and internship. It is an important part because these processes are the catalytic agents that enable the trainee to synthesize and apply academic learning to live cases with real problems, to get the feel of the one-to-one situation, and to acquire initial skill in the use of counseling tools. In many ways, these activities parallel those of the medical student and intern as he interviews sick people, writes up his preliminary case histories, observes operations in the amphitheater, sees demonstrations of diagnostic techniques on patients wheeled into his classroom, attends clinics, does ward rounds, and practices his diagnosis, medication, or surgery under the watchful eyes of his senior professors. Thus his practical learning is increased and his blundering is minimized. Observation and internship are more difficult in counseling than in medicine because of the fact, already stated above, that the presence of any outsider at the counseling interview tends not only to disturb it but also to alter its whole character and to render it ineffective. Observation, therefore, has to be carried on by means of carefully wrought case notes and by use of such devices as one-way screens, electrical intercommunication systems, and wire, tape, or disk recordings played back and analyzed for and with the trainees by the skilled clinical counselor. These are followed by staff conferences focused on individual cases with all available data brought in. Internship in counseling also demands preservation of the one-to-one interview situation, but the trainee's handling of a case can be observed, supervised, and checked by the same methods. The program of observation and internship can be arranged within the counseling services of the college or university and in nearly all high schools, junior colleges, and small colleges. These are usually more than glad to have such help at little or no cost, to participate in training better counselor personnel, and sometimes to select one or more from among the interns for later employment.

A person so trained can be considered at the present time to be professionally more competent than many counselors now practicing in elementary and secondary schools as well as some in colleges and universities. If the candidate brought undergraduate backgrounds in psychology and education with him he may prove to be an unusually competent person in the field of general clinical counseling. As indicated earlier in this chapter, a person with training to this level faces the problem of deciding whether to stop his formal training at this point, to add more graduate training in order to gain greater competence, or to combine this objective with the pursuit of the Ph.D. or Ed.D. degree.

It is obvious that there will be, for a long time, need for a continued recombining and reconciliation of training for *administrator-counselors* and for the *general clinical counselor.* Perhaps ideally, the programs for developing these two types of counselor should be joined in a single one, integrated and flexible so that, no matter what duties may be finally assigned in the employment situation, the counselor so trained will understand related organization, principles, and problems and thus be better able to gear his work to the total program. Present practice and budgetary limitations do not permit most secondary schools to afford a person so specialized as a full-time general clinical counselor without quasi-administrative duties even though the need for such clinical workers can be demonstrated to the hilt in any school. Practical considerations, however, force compromises with a council of perfection. Hence, because placement for most counselors at the master's degree level is in the secondary and increasingly in the elementary schools, we must train people who can win employment and work effectively under existing conditions but who will be ready to do an even better job as conditions improve. This appears to mean that individuals planning at present for counseling in high schools must meet most, if not all, of the requirements for the *administrator-counselor.* At the same time they should do all that they can to prepare to give their

later counselees professional clinical services as the schools in which they work provide funds, time, and administrative support. By working to combine these two training programs it seems possible to obtain well-qualified persons by offering a solid, unified curriculum of approximately forty-five semester hours of graduate work.

What special degree beyond the master's, if any, should be granted a person so trained who does not want to try for the doctorate is not yet clear. Perhaps a certificate summarizing achievement would serve the purpose. For many who reach this level the remaining time, effort, and cost necessary to earn the doctor's degree will not appear too great. For these individuals it is not overly difficult to plan additional areas of study which will make them more effective in certain aspects of their work. Such a program will be discussed in the rest of this chapter.

General Clinical Counselors—Level II

The clinical psychologists designated as *clinical counselors —level II* include those individuals who have completed formal training for the Ph.D or Ed.D. degrees in appropriate areas of applied psychology, sociology, and education. Counselors at this level are usually employed only in very large secondary school systems, colleges, and universities. These professional workers will have completed professional training, including internship and other in-service training, equal to that of nearly any other profession in length and in difficulty. As is true of any broad professional categories, such as medicine, counselors can be classified in terms of the functions which they perform into major and quite different subclassifications, such as psychotherapy, mental hygiene, applied social psychology, and industrial personnel and employment psychology. We are primarily interested here in the general clinical counselor, chiefly in school and college, who is more or less at home in dealing with a number of these major categories of human problems.

Training for the most highly professionalized general clinical counselors varies in its patterns. Because the majority of these individuals are employed by educational institutions, their competencies tend to center upon problems of children, youth, and adults in formal educational situations. The broad bases of training, however, are often identical with, and usually similar to, those that underlie the related areas mentioned above. Inspection of catalogues from major universities offering professional courses in clinical psychology indicates these identities and similarities.* We find that the candidate for the doctoral degree in personnel psychology, clinical psychology, and counseling, whose aim is to find a place in educational institutions, is usually required to plan and complete a training program within the following framework.

History of the field
Psychology
  Developmental
    Child
    Adolescent
    Adult
  Differential
  Systematic

* The following sources will throw interesting side lights on what authorities with various backgrounds recommend for counselor training.

The Advisory Committee on Vocational Counseling, Professional and Technical Division, Bureau of Training, War Manpower Commission. *The Training of Vocational Counselors.* Washington, D.C.: Government Printing Office, 1944.

Kitson, Harry D. "The training of a vocational counselor," *The Journal of Clinical Psychology,* 1945, 3:180–181.

New York State Department of Education, Albany, N. Y.: *Bulletin on Counselor Certification.*

Paterson, Donald G., Schneidler, Gwendolen G., and Williamson, E. G. *Student Guidance Techniques.* New York: McGraw-Hill Book Company, Inc. 1938. Pp. 300–305.

Super, Donald E. *The Dynamics of Vocational Adjustment.* New York: Harper & Brothers, 1942. Pp. 273–274.

Measurement and statistics
  Elementary, intermediate, and advanced statistics, tests and measurements, individual tests, psychometrics
  Research and evaluation
Clinical
  Tools and techniques of counseling
  Psychotherapy
  Abnormal psychology
  Social psychology
  Case studies
  Problems of, and therapy for, the physically, mentally, and emotionally handicapped
  Observation and internship
Education
  Philosophy
  Learning
  Curriculum
  Administration and supervision
  Group methods
  Occupational information
  Placement theory and techniques
  Diagnostic and remedial techniques in all learning processes
Thesis research

It is obvious from the above suggestive composite outline that few people would meet all of the minimums given. Nevertheless, the breadth of training indicated underlies the practice of the general clinical counselor in educational institutions. It is also obvious that certain specialized outlets, such as those in educational-vocational problem treatment with the handicapped, in psychometrics, in speech pathology, semantic therapy, group dynamics, art and music therapy, etc., will each change emphases within the training program. Attention is also directed to the probable competence which may be acquired from such a program by individuals who plan an entry into business and industrial personnel work, or as a basis for postdoctoral training in psychiatry and psychoanalysis.

It is quite apparent that the counselor in educational in-

stitutions will benefit from pretraining experience as classroom teacher in schools or colleges or as a worker in social agencies or in governmental employment related to the selection of personnel and dealing with adjustment problems. Whatever the graduate curricular pattern undertaken, the survivor of a long and difficult training period will soon discover that the professional learning process has not been completed. From two to five years of practice must elapse before top-level professional performance in clinical counseling can be assumed.

Summary

Counseling has reached the stature of a profession. Because educational and certain other types of institutions cannot afford a number of "narrow" specialists, the "generalized specialist" has evolved to reach the same level as the clinical psychologists. This book is concerned chiefly with general practitioners who work within the normal range of all human problems, but who tend to emphasize the treatment of those that are educational-vocational-personal problems. There are several levels of counselor training and practice. These levels merge into each other from the academic adviser, at a simple level of problem difficulty, through the administrator-counselor and beginning clinical counselor, to the fully trained clinical psychologist holding the doctoral degree. Even with quite specific occupational outlets in mind during his training period, the graduate generally finds he has a surprising multipotentiality for service since his preparation for a specialty has many basic elements in common with other specialities in the field.

The selection of candidates for admission to training and practice in counseling should be much more rigorous than it has been in the past. This means both self-selection and selection by training institutions. Not only academic potentiality, but personality and backgrounds of experience

and education are of prime importance in this selective process.

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Chapter 2. SOME PRINCIPLES OF CLINICAL COUNSELING

The general clinical counselor is not a robot with an automatically operating kit of machine tools. There are no formulas or push buttons which select the most appropriate counseling tools and techniques for dealing with the problems of any particular individual and then produce "the" answer. Instead, like all other professional fields, this one requires general, efficient guideposts. These guides are derived from the experience, observation, and experiments of many workers. They are set down as *principles* of procedure and policy. They are subject to continuous analysis and refinement as knowledge grows. They are flexible. They are never absolute laws to which no exception may be made. They do not apply with equal force in all situations nor with all counselees. Sometimes one principle appears to conflict with another and they must be brought to compromise. We discuss, then, some of these basic principles of general clinical counseling at this point because they give us a sort of navigation chart by which we may steer a course through the complex processes considered in later chapters.

1. Counselors should work within the limits of their professional competence. No professional clinical counselor ever completes his training. No matter how intensive and wide-ranging his academic education in theory, or how solid and extensive his observations and preliminary internship and later practice, he continues to find himself baffled by his limitations in insight, his ignorance of methods, and his awkwardness in handling such counseling tools as are available to him. With every fresh counselee he faces new and

complex situations. The multitudinous factors of human motivation and behavior interact in many different ways and in varied combinations to produce problems requiring counselor help for their solution. While the problems of two or more students may, on the surface, seem to be identical and their anxieties and resultant actions may appear to be similar, careful diagnosis will show them to be quite different both in their causes and in possible solutions. The counselor's humility of self-recognized ignorance is, therefore, of continuing importance. It must be a rational humility, however, an objective admission of limitation in the face of infinite complexity. It must never develop into an emotional sense of inferiority which leads to self-recrimination, depression, and overtimidity about undertaking responsibility for handling new cases. When this happens, the counselor is himself ready for psychotherapy.

With sound analytical modesty, a counselor will continue to grow in effective power and skill. He will set up for himself a rough scale of levels of competence somewhat on the pattern of those described in Chap. 1 of this book. He will peg himself at what he realistically conceives to be his present level. He will look back over his training and experience to see how far he has come. He will try to identify his limitations and his gaps. He will look ahead and plan means of removing the one and filling up the other. And especially he will continually widen his acquaintance with all available nearby specialized clinical resources which he may consult or to which he may refer his counselee for supplementary aid or for deeper diagnosis and therapy. To know when, to whom, and for what to make such referrals or to seek advice and interpretation from consultants is one of the prime abilities of the first-rate counselor and should be one most earnestly sought by the beginner. If he seeks to develop it, he will avoid the many hazards which commonly trap the neophyte, such as false interpretation of test data, misinterpretation of motives, oversimplification of troubles and their causes, bad timing so that help is given too

soon or too late, and, worst of all, undertaking to help a student with a compulsive neurosis or a severe psychosis by means of ordinary treatment. Any of these errors of the amateur may foul up the situation and plunge his counselee, and sometimes himself, into a "sea of troubles."

2. *Counseling should not be forced on individuals with problems.* The major objective of counseling is to help individuals to solve their own problems. It is seldom either psychologically sound or clinically practical to force treatment on unwilling people unless they are so bewildered or crippled by their troubles as to have lost temporarily the power of judgment and decision. Such forcing of the counselee prevents the swift development of essential rapport and slows down or blocks the whole process by rousing resentment, stubborn reluctance, or suspicion. Lack of readiness for counseling can be more serious than, say, lack of readiness for reading. Only when the troubled counselee-to-be is convinced that he faces a situation with which he cannot cope alone and recognizes that a trustworthy source of aid is at hand can we usually expect effective counseling.

There is not complete agreement on this point, at least in handling problems of career selection and preparation. Myers,[1] for example, states:

> In order that a program of vocational counseling in a high school may be comprehensive, it *must reach all pupils* in the school. It is not sufficient to make the counselor's services available to all who wish to consult him. *It is necessary to require that all come to him for individual interviews just as they are required to take English or history.* (Italics not in original.)

Many counselors will raise objections to this viewpoint. In the first place it is, at first glance at least, a highly authoritarian procedure. Many students may already have arrived at seemingly firm vocational choices and have few related educational and personal problems. If forced to

[1] Myers, George E. *Principles and Techniques of Vocational Guidance.* New York: McGraw-Hill Book Company, Inc., 1941. P. 251.

take diagnostic tests and meet scheduled interviews, they may either resent probing or manufacture symptoms which they believe will please or plague the counselor. Counselor time is generally too precious to use in overcoming the resentment or in having fun and games with fictional troubles created for the moment. The student who dislikes English and history but is forced to study them usually profits little or not at all from them as compared with studies he elects because he wants them or is sure that he needs them. Rigid academic requirements superimposed upon students of vastly different abilities, interests, and aims are considered by many psychologists and educators to constitute a major cause not only of scholastic failure but of many emotional disturbances as well. Such specialists, therefore, insist that compulsory counseling cannot be justified by reference to compulsory curriculums. In any case, the student who is forced to be "counseled" cannot ordinarily be expected to benefit to the same extent as those who have asked voluntarily to be counseled or who have had skillful orientation to the need for, and availability of, help. Chisholm states well this opposition to Myers' viewpoint:[2]

The effectiveness of counseling, therefore, will rest to a considerable extent on the adequacy of various aspects of the guidance work preceding counseling. This is particularly true if we conceive counseling as an *advisory* service. Conceived in this light, the aim in guidance is to have most counseling take place between a counselor who is prepared to render efficient advisory service and the student who is well enough informed about various factors involved in his problem to weigh or consider adequately the information and advice given by the counselor. Counseling at its best, therefore, is not a condition of the blind leading the blind. Neither is it a case of those with clear and unmistakable vision leading the blind. Instead, it is the case of a rational being, who is reasonably well informed about the facts involved in the problem he is facing, availing himself of the

[2] Chisholm, Leslie L. *Guiding Youth in the Secondary School.* New York: American Book Company, 1945. P. 158.

mature judgment or counsel of one qualified to render such service.

A second objection to the practice of requiring students to be "counseled" is the implication of assuming that every student has, at a given time, in a given school, problems which need counseling, until he can prove that he has none. The counseling program at the University of Minnesota has often been accused of being the fount of "directive" counseling. Although, in the writers' opinion, based upon direct and extensive experience, this is not a true appraisal of that program, it is interesting to note that Paterson,[3] who was responsible for laying its original foundations, and Williamson and Darley,[4] who have built the superstructure, avoid forced counseling as an accepted policy.

Paterson states his early objectives for the counseling programs as follows:

> First, to bring about a more harmonious adjustment of individual students to the opportunities available within and without the university, and second to establish, so far as possible, a friendly and constructive personal relationship between individual members of the faculty and *students desiring such contact.* (Italics not in original.)

Williamson and Darley, reviewing the case load of the University Counseling Center, state that

> During the period from July 1, 1932, to June 30, 1935, 3,079 different students were tested and counseled, of which 1,628, or 52.9 per cent, were referred by faculty counselors and administrators, *and 1,451, or 47.1 per cent, came voluntarily.* (Italics not in original.)

It is to be noted that certainly many of those who were referred by faculty or administrator had initially sought help

[3] Paterson, Donald G. "A program for student counseling," *Problems of College Education.* Minneapolis: University of Minnesota Press, 1928. Pp. 265–266.

[4] Williamson, E. G., and Darley, John G. *Student Personnel Work.* New York: McGraw-Hill Book Company, Inc., 1937. Pp. 88–89.

from them as teachers or administrator-counselors. Others who were directed to the Testing Bureau and Counseling Service were usually in such trouble that the alternative was to leave college.

While the writers have serious doubts regarding the effectiveness of wholly non-directive methods in dealing with counselee problems which are primarily educational-vocational, Bixler and Bixler make a telling point in their article advocating such an approach.[5] Their emphasis on client participation and partial control is an important modification of an all-or-none position.

Advocates of forced counseling, in general, defend their position on the by-no-means-unsound basis that society is supporting the schools and colleges by taxation or private endowment; that parents are expending money, and students their time and energy, for a general and vocational-professional education that will more than pay dividends to both society and the individual if it is efficient. It cannot be efficient, so the argument runs, if more than a very small percentage of the students make wrong career choices, enter the wrong curriculums, or have their progress in their studies hamstrung by emotional upsets, financial stringencies, study-habit deficiencies, and the like. The institution is held to be responsible for cutting such waste to the lowest possible point. Since clinical counseling is the only means so far discovered for even approximating such efficiency, both by trouble shooting and by prevention, it is argued that all students should have it even if it is necessary to require it. In partial answer, objectors to forcing hold that this end may well be reached by methods other than coercion. Orientation programs at Ohio State University,[6] the University of

[5] Bixler, Ray H., and Bixler, Virginia H. "Clinical counseling in vocational guidance," *Journal of Clinical Psychology*, 1945, 3:186–192.

[6] Institute for Education by Radio. *Education on the Air, Twelfth Yearbook*. Columbus: Ohio State University Press, 1941.

Minnesota,[7] the University of Nebraska,[8] and in large numbers of high schools[9] have demonstrated that counseling services will be voluntarily utilized by very large numbers of students if the service offered is good enough to build favorable student and faculty opinion toward it.

It seems appropriate to close the discussion of this principle with a quotation from Rogers,[10] who here expresses it in terms so positive, absolute, and striking as to make it easy to remember no matter how much we may wish then to qualify and modify it.

[7] Hahn, Milton E. "Vocational orientation," *Journal of Higher Education,* 1940, 11:237–241.

MacLean, Malcolm S. "The General College of the University of Minnesota," *Journal of Higher Education,* 1940, 11:231–233.

Spafford, Ivol. "Home-life orientation," *Journal of Higher Education,* 1940, 11:299–303.

Thornton, James W., Jr. "Individual orientation," *Journal of Higher Education,* 1940, 11:233–237.

Wilson, E. C., and Ylvisaker, Hedvig. "Social-civic orientation," *Journal of Higher Education,* 1940, 11:293–298.

[8] Materials available through Director of the Counseling Center, University of Nebraska, Lincoln, Neb.

[9] Chisholm, *op. cit.,* pp. 31–156.

Cox, Rachel Dunaway. *Counselors and Their Work.* Philadelphia: Archives Publishing Company of Pennsylvania, 1945. Pp. 48–71.

Erickson, Clifford E., and Hopp, Marion Crosley. *Guidance Practices at Work.* New York: McGraw-Hill Book Company, Inc., 1946. Pp. 48–141.

Hahn, Milton E., and Brayfield, Arthur H. *Job Exploration Workbook and Occupational Laboratory Manual.* Chicago: Science Research Associates, 1945.

Koos, Leonard V., and Kefauver, Grayson N. *Guidance in Secondary Schools.* New York: The Macmillan Company, 1932. Pp. 31–187.

Warters, Jane. *High-school Personnel Work Today.* New York: McGraw-Hill Book Company, Inc., 1946. Pp. 106–191.

Wrenn, C. Gilbert, Hein, Reinhard G., and Pratt, Shirley. *Aids to Group Guidance.* Minneapolis: Educational Test Bureau, 1946.

[10] Rogers, Carl R. "Non-directive counseling as an effective technique," *Frontier Thinking in Guidance.* Chicago: Science Research Associates, 1945. P. 108.

It is assumed that we should respect the integrity and the personal autonomy of the individual. It is felt that each person has a right to make his own decisions. He has the right to seek help and to take help, but he also has the right to refuse help. He is responsible for his own life, and every precaution should be taken to build this sense of responsibility, rather than to tear it down.

3. *Counseling must strive to develop client understanding of self and of environment.* In the preceding section we discussed the need for orienting the counselee to the availability of, and the need for, counseling with his personal problems. Brief mention has been made of certain methods by which to make counselees aware of their counseling needs and the sources of help. Here it is essential to suggest that these necessary understandings are quite specific, that there is a growing body of accurate and detailed knowledge about them easily available. For clarity and convenience we treat these understandings as if they were two categories, recognizing as we do so the artificiality of the dichotomy and the inseparability of the two aspects which are *understandings of self* and *understandings of environment.* Our purpose here is to consider these types of understanding as basic aims of counseling. In the next chapter more detailed analysis is made of their relation to common difficulties.

When a student's major problems center in the educational-vocational area, understandings of self are, for the most part, concerned with personal *aptitudes, abilities, interests, drives, and motivations.* We find that many deficiencies in his powers of adaptation are related to his task of selecting and preparing to earn a livelihood, including provision for the extras necessary to comfortable and healthful living and to satisfying avocational and leisure-time activities. These deficiencies stem from his failure to understand himself in relation to the socio-economic world in which he lives and will live. Parents, radio, movies, advertising, and magazine romances have often filled his head

with fantasies about himself, the world of work, and the world of school and college. Our task is to make available to him counselors who can help with self-evaluation,* strip away his illusions and replace them with the realities concerning his measured personal assets and liabilities; show him how these may be adapted to ready him for a personally satisfying and socially useful job; inform him as to the range and kind of vocations in which he might find his optimum employment and as to the rewards and hazards of these; and, when his choice is made, indicate the school and college curriculums which will best make him ready.

Although we have as yet too little crucial experimental evidence of the values of group orientation procedures, especially as they bear upon preparation for clinical counseling in the general area of emotional conflicts,[11] the state-

* This term is *not* synonymous with "self-analysis" as used in current literature, for example, in Karen Horney's *Self Analysis* (New York: W. W. Norton & Company, 1942.). The authors recognize the impossibility and undesirability of having counselors and others analyze individuals and force the analysis upon them. We see also the poor, and sometimes tragic, results when students attempt to achieve self-understanding by dabbling in pseudo psychology or attempting to treat their own ills with homeopathic doses of pronouncements on personality or flights into quack mysticism. What we mean here is the use of the counselor as an objective mirror which reveals new facets of self to the counselee in addition to those he may have discovered through the inevitable self-assessment which all of us continually make. Distortion of greater or lesser degree must be assumed in both counselor diagnosis of a counselee and self-assessment by the counselee. By use of both approaches it is assumed that the two "reflections" merge into a clear binocular image of the individual.

[11] OSS Assessment Staff. *Assessment of Men.* New York: Rinehart & Company, Inc., 1948. Pp. 222–223.

Psychiatrists in the neuropsychiatric wards of hospitals for veterans have used this procedure to demonstrate how guided discussion in a group of some twenty to thirty men produces some illumination of individual problems, alleviates the sense of loneliness and anxiety arising from the notion that "nobody else ever had a problem like mine," and stimulates confidence in the possibility of being helped by the psychotherapist. The authors have noted somewhat similar

ments of Williams and Embree[12] indicate the attitude of many professional counselors toward such programs. Embree's comments are:

It is impossible to provide an objective or quantitative estimate of the value of vocational orientation courses to the individual counseling activity carried on by General College counselors. A subjective review of experience with many interviews would lead me to believe that those courses are of great value to the counselor. Classes in vocational orientation have furnished good initial orientation to the various measuring devices used in General College, as well as sound foundation upon which vocational counseling interviews can be organized. Vocational autobiographies, supplied by these courses, are valuable additions to the personnel records. Finally, vocational orientation courses have been a definite force in motivating students to come for counseling interviews.

Williams is even more emphatic.

It is my distinct impression that students who had had, or who were taking, the vocational orientation course were easier to advise on vocational and educational problems than many of those who had not had the course. Students who came in for vocational advice often told me that they needed to know something about their own abilities and limitations. They seemed to have enough preliminary and basic understanding of 'aptitude testing' so that explanation and interpretation to them of their own test scores was easier than for students who had not taken vocational orientation. They were, in other words, 'softened up' to the point where they were ready for counsel-

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effects in teaching courses in mental hygiene. See also Chap. 5, Psychodrama, on this point.

[12] These statements are contained in Stone, C. Harold. "Evaluation program in vocational orientation," *Studies in Higher Education; Biennial Report of the Committee on Educational Research*, 1938–1940. Minneapolis: University of Minnesota Press, 1941. P. 143.

See also *Educational and Psychological Measurement*, 1948, 2:161–182.

ing and could see some value in it, and they were well enough prepared for the interview so that the test interpretations proceeded more smoothly. They asked more intelligent and penetrating questions, and they understood better what I was trying to tell them.

It is clear from these statements that group methods are often an acceptable and efficient method not only of preparing students and others for counseling, but also of illuminating their need for counseling. If, in addition, the students are fully informed as to what counseling resources are readily at hand, there seems to be little need for coercion. Moreover, the process is cumulative. If a student begins to acquire rational self-understanding he tends to go on to use facilities to gain ever greater self-understanding.

Some examples of fields in which organized knowledge has made specific materials available to help toward self-understanding and general orientation to counseling services are: (a) the nature of aptitudes and abilities, (b) methods for estimating, judging, and measuring kinds, amount, and quality of aptitudes and abilities,[13] (c) the nature of vocational interests, (d) methods for estimating, judging, and measuring vocational interests,[14] (e) the nature of motivation and drives in human behavior, and (f) the kinds of help that can be expected from various available clinical workers who deal with educational-vocational problems. The above is, of course, a rough outline of portions of a course in applied or educational psychology. Implicit in this material is an understanding of the field-level concepts of matching human aptitudes, abilities, interests, and motivations with the various kinds of work which need to be done in the world. Hence it is particularly important that occupation-

[13] See especially for (a) and (b) Crawford, A. B., and Burnham, P. S. *Forecasting College Achievement.* New Haven: Yale University Press, 1946. Vol. I.

[14] Strong, Edward K., Jr. *Vocational Interests of Men and Women.* Stanford University, Calif.: Stanford University Press, 1943.

ally useful human traits be described in the same terminology that is used to describe the job duties and behavior.

The second aspect of this principle is concerned with the environment, the world of college and of work, which the individual faces now and in the predictable future. In the past it has been standard procedure to offer courses in occupational information, employment trends, and procedures and techniques in how to get a job. We have also made more real our classroom presentations by trips to business, industrial, and service institutions. Experimental investigations and evaluation of these practices, if a major objective of the offering is to improve educational-vocational choices, are even more scarce than for group orientation programs in self-understanding. Much of such research as has been done indicates only that, if a student has such a course, he tends to possess more factual information about the formal content of the course than if he had not been so exposed. Desirable basic changes in his attitudes and behavior have seldom been demonstrated.

Stone's study, mentioned above, raises serious questions concerning the validity of traditional assumptions about such group orientation. We cannot be too certain that the individual with the most factual information about occupations will, on his own and without clinical counseling, make the best educational-vocational choices. We cannot assume that his statements to a class or an instructor about the type of problem he faces are either reliable or valid. Many students who are subjected to group orientation undoubtedly still carry with them their illusions about themselves and their schooling and about occupations, and, therefore, need immediate individual counseling. It is nevertheless doubtful whether either group or individual approaches alone will yield optimal results. A combination of group and individual clinical methods, wise use of many counseling tools and techniques, and the follow-up of cases appear to be our most valid and reliable pattern of operation. Whatever plan we follow, our primary objective is to interest the coun-

selee in himself and his problems to a degree where, if he feels that help is needed, he will seek out additional resources to help him resolve his difficulties.

4. The counselor should act as a special type of corrective mirror. The counselee ordinarily has a quite complete set of idealized images of himself in regard to his aptitudes, abilities, and interests. This self-formed gestalt is frequently superficial, inaccurate, and unrealistic. In addition to his ideas about what he can do, the counselee also nourishes aspirations and dreams regarding his future status in society. While a few individuals will be quite accurate in these self-appraisals, most are not. Even if half of the students in our secondary schools and colleges are capable of fairly sound evaluation of self, the counselor will still have all he can do to aid those with poor evaluations to make better ones and to help confirm the thinking of those whose present plans are sound. A still further problem is to identify those with good and poor choices. In adolescents and young adults the tendency to shift from good plans to poor appears as great as the tendency to shift from poor educational-vocational plans to good ones. The counselor's task is, therefore, to hold up a mirror so that the counselee may see himself and his world as nearly as possible as they really are. His job is to correct the student's sights, to show him both his unsuspected talents and his equally unsuspected limitations, to open up hitherto unseen avenues of rewarding toil, and to warn him of difficulties and hazards along other routes. Super[15] states this need for counseling well.

But it has long been recognized that ability to find facts, to draw conclusions, and to take action matures slowly and at different rates in different areas of experience. Family life and education are based upon the idea of giving the child the help he needs when he needs it, of gradually turning responsibility over to him as he becomes ready to assume it. In other areas also we recognize the limitations imposed upon us by lack of knowl-

[15] Super, Donald E. *The Dynamics of Vocational Adjustment.* New York: Harper & Brothers, 1942. P. 152.

edge, skill, and insight. When we need medical care we go to a physician. When we want to build a house we do, if financially able, consult an architect, even though we know about what we want. It is only natural, with the complexities of human nature and of modern life, that most young people and adults need the assistance of skilled counselors who have been trained in the understanding and interpretation of vocational problems. The important concept of self-guidance is, therefore, that the role of the counselor is to help the individual find relevant personal and social facts, understand them, and make appropriate decisions. It does not involve doing his thinking for him and giving him a prescription. In this way at least guidance differs from medicine as usually practiced.

5. The counselor should aid the counselee to accept himself as the mirror shows him to be. At the point where all the facts are in, and the counselor and counselee begin together to fuse them into a realistic picture of the pattern of abilities, aptitudes, and interests of the student, and its implications for his future, it is essential that the counselor put forth every effort to help his counselee to a favorable acceptance of this new portrayal of himself. Failure to do so can result in dire and sometimes tragic consequences. The reasons for this are clear.

All of us carry about with us a set of idealized and despised images of ourselves.[16] Through childhood and youth particularly we daydream of being heroes, big shots in business, great healers, artists, lovers, statesmen, scholars, engineers, or saints. We are told by parents, teachers, and preachers what we ought to be and to become. Our movies, radios, newspapers, advertising, novels, and even textbooks in school parade before us an endless series of success stories implying that we too can walk among the great of the earth. Out of all of these materials and impressions we build a portrait

[16] For a fairly adequate treatment of the theory of the idealized and despised image see Horney, Karen. *Our Inner Conflicts.* New York: W. W. Norton & Company, Inc., 1945. Chap. VI.
See also *The Secret Life of Walter Mitty.*

gallery of distorted, fanciful, unrealistic pictures of ourselves as we feel we are and will become if we only work hard enough or particularly if we have luck. To a great extent our planning and our struggles are aimed at making ourselves over into living duplicates of these fantasies. Since, for the most part, these ideals are unreal and unachievable, we frequently fail and are frustrated in our attempts to live up to them. Each frustration and failure acts to create another gallery, one of despised images of ourselves. When we view these we are more than likely to go into a tailspin toward feelings of depression, inferiority, self-hatred, and despair.

In counseling, this principle is of the utmost importance. It is essential that the counselor get as clear and comprehensive understanding as is possible of the idealized and despised self-images carried by his counselee. He must then see how the findings of the case study are likely to attack, modify, or destroy them and to estimate the probable shock of the process to the student. Having done this, he may then be able to help his counselee build new, realistic, positive, and achievable images before the old ones crumble and collapse and gain healthy acceptance of his newly pictured self. Frequently students who seek help baffle the counselor because they already have a sense of inferiority, depression, and a low opinion of themselves. Too few counselors appear to recognize that these symptoms are caused chiefly by overidealization, past and present, and hence fail to probe for the idealized images which have created the despised ones. It is often more difficult to build up self-acceptance and self-confidence in a student already deep sunk in despising himself than to cut down to size without damage one who vastly overrates himself.

6. *The counselor should not close educational-vocational doors without opening others.* The aspirations of youth in our democratic culture often far outrun the abilities and aptitudes, the resources needed to attain their desired goals, and the number of opportunities available to them for either

training or employment. A typical example of this type of problem is the choice of medicine as an educational-vocational outlet. Their imaginations kindled by story and movie treatments of doctor heroes, and their drives for prestige and income overfed by often distorted rumors of physicians' easy achievement of high social status and fat fees, hordes of youngsters clamor to be admitted to training. In the area served by a single medical school the number of high school students planning to be physicians may outnumber the openings in the freshman class of the medical school each year by twenty-five to one.* Because similar pressures are in evidence at all medical schools, this occupational door must be closed upon many applicants. Although many of those rejected might well be successful physicians and surgeons, if opportunity for training were available, many more have little or no chance for success even if admitted to the medical curriculum. This condition obtains in the higher levels of many professional and business occupations. The authors well remember a student of such passionate persistence and such ineptitude for medicine that he spent three years taking premedical courses, failing them, repeating, and failing again. His frustrations bred such acute anxiety that he had to spend another year getting psychotherapy. He finally wound up as a successful salesman of medical supplies, a job which combined his interest and abilities. These had been identified and presented to him by his counselor four years before.

Often all of the data collected by a counselor indicate that his counselee has a very limited chance for success in the occupational outlet he has chosen even if he is permitted a trial. In this all-too-common situation the counselor must strike a fine balance. He must consider not only the student's wishes but the effects upon society if obviously poor material is fed into professional and technical fields. While

* The number of seriously considered applicants for fifty-six positions in the Medical School freshman class of Syracuse University for fall, 1948, was in excess of 1,250.

the counselor has no right to dictate to the counselee what he can or cannot do—and sometimes the only way he can bring conviction is by letting the counselee try out training for a while—he does have an obligation to review all the positive and negative factors in the assessment of both the counselee and the requirements of the college and of the profession. The final choice, except when admission requirements bar him, remains with the counselee after all pertinent factors have been presented and discussed, placed in the proper frame of reference, and weighted soundly by someone trained to make such judgments. When the evidence indicates that, even with training completed, the counselee is likely to have one chance in fifty of success in his chosen field and that he has one chance in twenty-five of being admitted to higher levels of training, it seems clear that he should not be encouraged to compete with much better qualified candidates for the available openings.

When confronted with this often-repeated situation, even after the counselee decides that an educational-vocational choice is impracticable, the counselor's task is only half done. He is never justified in stopping his work at this point unless his sole assignment is that of screening candidates for admission and acting as a watchdog at the gates, a hapless and unsatisfying job to most clinical counselors. Normally he continues into the positive and rewarding work of helping the counselee to formulate new plans and prepare for an occupational outlet congruent with his abilities and basic interests. The very evidence which may have helped the counselee to reject his old choice nearly always points toward new objectives which will be personally satisfying and socially acceptable. The occupational multipotentiality of the human being is a staunch ally if wisely focused by the counselor.

Frequently the counselor will find that several doors and the vistas beyond them will open most easily to the counselee if he presents the organization and structure of job families and the various ability levels demanded within such fami-

lies.[17] Disappointments over choices which appear to be beyond the abilities of the counselee often may be mitigated and later changed to satisfaction in the finding of substitute outlets which require the same pattern of abilities and interests but at a somewhat lower level. For example, in the *Minnesota Occupational Rating Scales* (pp. 105 and 109) job-family pattern number 8 includes broker, loans, finance company; editor, publisher, large plant; educational administrator; employment, personnel, college graduate; hotel manager, large city hotel; and journalist, feature writer, as occupations related in terms of the amounts of broad abilities needed at the professional or higher administrative level. If academic ability (level) is dropped to the semiprofessional or technical level, the remainder of the ability pattern remaining constant, a new job family is disclosed which includes such occupations as adjustor, insurance claims; broker and commission man; and credit man, credit department, etc., which, on analysis, may prove satisfactory to the counselee. In fact, it sometimes turns out to be what he really wanted all the time, that he had been misled by faulty or inadequate job descriptions.

At other times the new doors may open at the professional level but in a related profession which does not require the same pattern of abilities or at quite the same level as the original choice. Both the nuclear physicist and the civil engineer work at the professional level in a scientific-mechanical field. To meet the minimum standards of the

[17] The reader will find various concepts of job families in the following publications.

Paterson, Donald G., and Darley, John G. *Men, Women, and Jobs.* Minneapolis: University of Minnesota Press, 1936.

Paterson, Donald G., Gerken, Clayton d'A., and Hahn, Milton E. *The Minnesota Occupational Rating Scales.* Chicago: Science Research Associates, 1941.

Shartle, C. L., *et al. Occupational Counseling Techniques.* New York: American Book Company, 1940.

Trabue, M. R. "Functional classification of occupations," *Occupations,* 1936, 15:127–131.

physicist may require more scholastic and advanced mathematical ability, as well as some difference in personality structure, interests, and attitudes, than is needed to meet the minimal requirements for successful work as a civil engineer. Both, however, have high professional status and there may be little loss of face and an actual gain in potential income in substituting the one for the other.

7. *The counselor should help the counselee to consider all practical educational-vocational alternatives.* The wider knowledge and experience of the counselor usually places him in a better position to see a greater number of possible educational-vocational alternatives than can the counselee. Youth is often much more unsure of itself than it appears to be on the surface. In addition, it operates much of the time in terms of fantasy, fiction, and rumors or incomplete data which have been only superficially investigated. To do otherwise without more knowledge and experience is an impossibility.

This is not to imply that counselors know it all or that they are wholly rational and their judgments uncolored by ignorance and prejudice. They also must often counsel with incomplete data. They have, however, an obligation to collect enough information about each counselee to ensure a relatively complete case study of his aptitudes, abilities, interests, motivations, and social and health adjustments. In addition they must gather all pertinent knowledge of the counselee's family and their interpersonal adjustments, financial status, cultural backgrounds, and recreational activities. Hobbies and level of reading often prove of importance. To gather such a complete collection of case history data on separate individuals at separate times would be an almost impossible task. Fortunately, however, the massing of students in educational institutions makes possible the collection of much of the needed data at the same time with groups of students. If the personnel program is well organized and administered, much of the information a counselor requires for individual counseling of students is at hand in the case history folder when it is needed. Thus in

college counseling, cumulative records of the high school years may be gathered from the registrar's or admissions office; course of study plans from academic advisers; test profiles from mass testing in Freshman Week; summaries of physical condition from the student health service; autobiographies from English composition classes; and many other data from other group sources may be had.

The availability of these data permits a skilled counselor to present to the counselee a comparatively complete and objective analysis of his pattern of strengths and weaknesses. He must then show him how this pattern may be effective in various educational-vocational plans and less satisfactory, or not at all, in others. To do so the clinical counselor must possess a large, clear, and current knowledge of both the offerings of his school or college and of occupational trends, outlets, and requirements. Without comprehensive case studies of students, without much more than casual acquaintance with local and outside educational resources, and without wide information about jobs and job requirements, a counselor is in no position to review and synchronize all three with the counselee.[18] Hence, some of the best criteria of a mature and efficient counseling program are these: the extent to which students with problems are made the subjects of reasonably complete case studies; the availability of clear and detailed information about courses and curriculums, which is no mean task in the complex of modern American education; and the presence of adequate and timely sources of knowledge about families of occupations,

[18] Examples of relatively complete case studies will be found in the following sources:

Darley, John G. *Clinical Aspects and Interpretation of the Strong Vocational Interest Blank.* New York: The Psychological Corporation, 1941. Pp. 33–51.

Darley, John G., in Strong, Edward K., Jr. *Vocational Interests of Men and Women.* Stanford University, Calif.: Stanford University Press, 1943. Pp. 457–482.

Williamson, E. G., and Hahn, Milton E. *Introduction to High School Counseling.* New York: McGraw-Hill Book Company, Inc., 1940. Pp. 220–245.

their demands, their hazards, their rewards, and the levels within them.

It is clear from the discussion of this principle that sound vocational-educational counseling requires highly trained clinical counselors backed by many other institutional resources, as we suggested in Chap. 1. It is obvious, therefore, that there are few, if any, parents, classroom teachers, or relatives and friends of individual young people who are competent to advise and help them with the choice of a career or the selection of a school, college, or university and a curriculum. For example, in choosing his studies, a student entering a large university will be confronted, whether he is aware of it or not, with from six to fifteen colleges, divisions, or professional schools. These will contain sometimes as many as fifty departments. The number of courses offered in a single American university is known to total more than 2,700. Facing this welter of offerings, a young student must have far more than his own, his parents', or his teachers' emotions, hunches, and opinions to guide him, however interested and friendly they may be, if he is to make rational choices. Similarly, in attempting to select his future work, he is faced with the fact that American men and women now earn their livings in more than 40,000 different jobs. Hundreds of these are fading out. Hundreds of new ones are being born. While researchers and clinical counselors are working constantly on clustering this bewildering mass of single tasks into families of occupations and are analyzing and defining levels within families in order to simplify the student's selection, even a crude conception of the problems involved is beyond the grasp of most laymen.

8. *Final educational-vocational decisions must be made by the counselee.* When all evidence is in, when alternative plans of action have been discussed, and when the counselee has considered his problems from all sides, the final decision rests in the hands of the counselee. It is his life and it is his right to make the choices. Some confusion has resulted from this type of statement. Many counselors have interpreted it to mean that the counselor must not him-

self lean, or press his counselee even slightly, in one direction or another. While it is seldom possible to justify a mandatory prescription by the counselor, it is clear that there can be both positive and negative prescription. If the counselor silently and passively accepts the student's obviously poor choice, made against all the weight of evidence, he is just as clearly prescribing, in negative fashion, as he would be prescribing positively if he attempted to impose his own formulated plan on the counselee. It is occasionally reasonable to let youth make its decisions without protest if the probabilities are that the resulting damage may be slight and of short duration and that the student may learn something of value from his error. But to permit obviously poor educational-vocational choices without emphasizing all negative data is to shirk clear responsibility.

9. *Counselors must search out all the angles of a counselee's problem and use all pertinent tools and techniques in its solution.* While in this chapter we have focused, for simplicity's sake, our discussion of the foregoing principles upon their application to the educational-vocational aspects of counseling and upon the basic tools and techniques used in this area, it should be clear that it is impossible to confine or encapsulate any phase of a student's gestalt. Vocational-educational choices and assessments of self as a potential worker and of environment in school and on the job are inevitably interwoven with all other aspects of a counselee's living, thinking, and feeling. He comes in with an apparently simple problem. His selection of a career and of a course of training may seem sound on the basis of most of the case history. But the counselor finds, say, on the Bell Adjustment Inventory, an indication of maladjustment in health, a suspicion of hypochondriasis. A check with the health service shows a picture of persistent ill-health but without diagnosis of organic cause. There are symptoms of allergies, headaches, and other psychosomatic disorders. Further probing develops that one of the contributing causes is family bickering, a dominant mother, and sibling rivalry and hatred. These are exaggerated by low income and

stringent finances which may, in turn, make it impossible for the counselee to stay in college or achieve his professional goal. At the same time he is so head over heels in love with a classmate that he is driving and rationalizing himself toward an immediate marriage. All of these pressures and conflicts have inhibited his developing modes of relaxation, hobbies, and outdoor activities, which might help to relieve his tensions. Unless all of these personal, emotional, family, and financial difficulties can be understood in their interactions upon one another and brought toward solution together, it is obvious that the prospects of success in college and in the chosen vocation are poor indeed. To help this student out of his bewildering complex, the counselor will have to make eclectic use of many kinds of approaches, insights, resources, and instruments other than those effective in vocational-educational counseling alone. Therefore, the principles above delineated apply, by implication, to the whole process, however ramified it may become.

The above discussion of these nine principles of counseling is in no way intended to be all-inclusive. Someday some master analyst and philosopher may write a fairly definitive treatise on the subject, comprehensively and exhaustively detailing the laws, principles, hypotheses, and constructs upon which the general clinical counselor of the future may found his procedures and practices. Our interest here was to set down what seem to us a few of the important rules of thumb which, observed, may make the work more effective and satisfying and which, violated, may cause frustration and failure. The bibliography at the end of the chapter will assist the reader to consider principles as viewed by other writers.

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Chapter 3. THE NATURE OF EDUCATIONAL-VOCATIONAL PROBLEMS

In order that we may be able to understand what we read and hear about such subjects as counseling, or to make others understand what we think and feel about them, it is necessary to label things, ideas, and processes in the field. But labels and names are not the things, ideas, and processes. Too often some brand names lead us into errors of thinking and others into misunderstanding. While dictionary definitions sometimes help to clarify what we and others mean, it is impractical for us to have a dictionary at our elbows at all times and places. Moreover, since dictionaries define words by other words which are defined by other words, this route to clarification is tough and usually unending. What actually happens is that each of us weaves into his special meaning of a word, name, or label a whole lot of strands of his own background and experience, many of these strands colored by emotion in hues quite different from those of others. This is what students of semantics[1] call "the emotional climate" with which each of us surrounds a given word and which may give it a unique or special meaning. In formal rhetoric it is called "connotation." Because of these variables in meaning we sometimes assume in counseling that giving a name to something clears up a difficulty for ourselves and our counselees when, in fact, the very act of naming may breed worse confusion and even damage the very student we would help. Thus to

[1] See Chap. 5, the section on Semantics as a Counseling Tool and accompanying references to Hayakawa, Wendell Johnson, Camp, and others.

hint to a student that he is "lazy" or "stupid" or has a "low I.Q." or a high score on a "neurotic" test or that he needs "downgrading" may hurt and damage him.

The purpose of this book is to focus upon counseling with individuals faced with *vocational-educational* problems. As suggested in Chap. 2, there is danger that, in so labeling this process and these problems, we and the reader may think of them as sharply separate entities, very different from other processes and problems with other names, simply because we have so labeled them. We must, at all costs, avoid this danger. It must become impossible for us to conceive of a counselee who has a "vocational" or an "educational" or a "vocational-educational" problem uncomplicated by, or unrelated to, other problems by cause or effect or both. A counselor employed by a school or college to put his major emphasis upon the vocational-educational aspects of student troubles will always find that his counselee also faces related ones in several areas, which may be labeled for convenience personal, emotional, social, financial, health, recreational, family, marital, etc. In one case he will find that an emotional disturbance makes it difficult or impossible for the student to meet his scholastic requirements, because he is in love, or "hates" a subject for as yet unidentified reasons, or is harassed by family quarrels. In another case the upset is caused by dull teaching, course assignments of reading and papers beyond the capacity of the most able, or poor classroom conditions of bad lighting, acoustics, or ventilation. In many instances counselees will describe their anxieties in terms of indecision or maladjustment in choosing a vocation. Probing will reveal that, in fact, the source of the worry is poor physical health, and a physician, not a psychologist, is needed to clear it up. Two cases from the authors' experience illustrate this point. Two freshmen women sought help with vocational problems. Both were performing at better than average scholastically. Both were harassed by anxiety which they attributed to their inability to make up their

minds about what they wanted to do. Symptoms observed in the one case were periods of almost frantic activity accompanied by sudden bursts of anger. Referral to the health service resulted in an operation for enlarged and overactive thyroid and this surgery, in turn, in a more placid and benign temperament. In the other, symptoms were waves of feeling exhausted and frequent catnaps during class sessions. Physicians traced their source to petit mal, and medication brought relief. Thereafter vocational decisions were reached without difficulty.

Unless we read into the nomenclature we use in counseling these wide-ranging connotations and modifiers, it must continue to be unreal, false, and misleading. To label a staff member in high school or college *the vocational counselor* becomes an absurdity. It implies that he deals only with problems of choosing, entering, and sticking to a job field. It suggests that he is an ignorant specialist, incompetent to understand and handle anything but the world of work and an individual's part in it. It hints that he knows nothing of the educational system except those courses and curriculums which train directly for specific tasks and that he ignores all liberal and general education as irrelevant fancy stuff, nice enough if there is time and money for them, but having no bearing on earning a living. It intimates finally that a counseling system, to be effective, would have to employ a dozen or more specialists whose functions barely touched at their edges and that a student, to be well counseled, would have to subject himself to thorough investigation by each of them, presumably drawing his own general conclusions from their separate findings unless, topside of all of them, there was a master synthesizer, diagnostician, and interpreter.

To avoid these more or less absurd implications it is essential for us to be constantly on guard to clarify to ourselves, the counseling labels we use and to make clear what we mean by them to our counselees. Our basic concepts

and distinctions may well follow those described in Chap. 1, where we attempted to show, by differences in function and levels of training, the meaning of *academic advisor, administrator-counselor,* and *general clinical counselor.* At this point we move into further efforts to show the meanings of types of clinical counselors. These, while having the same extensive basic training, may stress in practice one or another specialty, such as vocational, religious, or family counseling. A sound parallel may be drawn with the situation in medicine. David Jones, M.D., is a physician. The label M.D. tells us this. In addition he is listed as a pediatrician. Hence we know that he specializes in the diagnosis and treatment of the diseases of children, that he has studied this complex field intensively. But we assume that he is not, by this specialty, to be branded as ignorant of surgery, of the degenerative diseases of old folks, of diet, and of many other aspects of medical practice. We know he has completed some studies of all of these in an accredited medical school. We can assume that, although he devotes most of his time to diphtheria, mumps, measles, colds, and the like in children he can still, if emergency demands, deliver a baby, lance a boil, set an arm, or write a prescription for a drug to ease an oldster's heart attack. Moreover, we can be fairly confident that he will know when and how to refer a patient to another specialist.

Within this framework, then, we are here concerned with counselors who have broad and rich training over nearly the whole field but who will devote most of their professional time and study to students who want help with educational-vocational problems. Even so these counselors are competent to spot certain emotional conflicts or neurotic or psychotic conditions at least tentatively. They are able to administer, score, and interpret the results of complex psychological tests. They know how, when, and to whom to make referrals for specialized help. In emergency situations, they can administer temporary psychotherapy with

success. Nevertheless, they prefer to undertake the counseling of only those clients whose principal problem is selecting each his life occupational goals and planning the schooling essential to preparing him for them. These counselors have, at some point in their own general training, selected this area for specialization.

As they work further and deeper into this specialty they begin to see more and more clearly the nature of educational-vocational problems and to fashion and structure their growing comprehension into categories for convenience and efficiency in handling the analysis of the many causes of such problems; the diagnosis of the particular cause or set of causes in an individual counselee's maladaptation to himself, his school, and his work environment; the common as well as the rare or unique solutions for them he has discovered in his past training, reading, or clinical work; and the methods of making prognoses and the follow-up to check the effectiveness of his work. Some discussion of well-wrought ways of blocking out these categories appears pertinent.

General Categories of Educational-Vocational Problems

One of the most useful detailed treatments of the general categories of problems in this field is that supplied by Williamson.[2] Careful and frequent rereading of his discussion has been found by many to be constantly helpful in keeping the lines of thinking straight and practice effective among school and college counselors. It would be impertinent and futile to attempt to brief his discussion. Our purpose in presenting the following skeletal recapitulation is to illustrate a standard structure of such categories and to use this for a point of departure for discussion from another point of view. Williamson lists the following categories of general educational-vocational problems:

[2] Williamson, E. G. *How to Counsel Students.* New York: McGraw-Hill Book Company, Inc., 1939. Pp. 244–524.

Educational

1. Unwise choice of college, curriculums, and specific courses.

2. Differential scholastic achievement caused by differential scholastic aptitudes, by readiness for one course and not for another, by powerful interests clustered around one subject and unawakened or nonexistent toward another, by excellent teaching in one field and dull teaching in another, etc., or by a combination of two or more of these. For example, the authors remember a case of a student who operated at the highest levels in all courses in music and biology but did work wholly unacceptable to his teachers in the social sciences, mathematics, and English and very mediocre achievement in physics and chemistry.

3. Insufficient general verbal and scholastic aptitude, whatever competencies may be possessed in creative or interpretative arts, mechanics, social skills, etc.

4. Ineffective study habits in terms of organizing, time budgeting, concentration and resistance to distraction, and persistence.

5. Reading, writing, and speaking disabilities.

6. Insufficient scholastic motivation caused by feeble comprehension of purposes of academic training, satisfactions and rewards produced by it, and other factors.

7. Overachievement of the occasional student who, by sometimes appalling application, manages to get adequate or high grades, graduate, and enter a profession, only to find he has paid too high a price for his overweening ambition. How tragically harmful such overweening drive can be is illustrated by a student the authors knew. He aimed for a State Department job. He majored in political science and economics. Possessing scholastic ability measured on standard tests as being in the lower quartile for his academic placement, he nevertheless got a B average in his university work. He did so by studying more than eighty hours a week, denying himself all recreation, relaxation,

and normal living. Toward the end of his sophomore year he borrowed money, stole a relative's car, drove to Washington and presented himself at the State Department under the illusion that he had been offered a high-level overseas post at $20,000 a year. He spent three years under therapy in a state hospital before he was able to return to society in an occupation considerably below the level he might have attained had he geared his ambitions to his basic abilities. The problem of overachievement is important as we view the nature of educational counseling because it is commonly unidentified, or untreated, since there is a widespread illusion among institutions and their faculties that students who are passing their courses are "well adjusted," have no cause for anxiety, and will probably be "successful" out of college, as well as in.

8. Underachievement of far too many students in all high schools and colleges. These students are so verbally and scholastically able that with even a small amount of application they can pass courses in all or most of the curriculums they enter, whether or not measured interests and other indices show them well or ill suited to the occupational outlets from the courses of study in which they easily accumulate credits. It is disturbing, sometimes shocking, to review the case history folders and the follow-up studies of such students. Theoretically they are the ones from whom the most may be expected in terms of personally satisfactory living in all aspects, high-level job competence, leadership in service to society. But these expectations are too seldom met. For many reasons—such as poor teaching, little or no counseling, inadequate assignments, required repetition of study of materials with which they are already familiar, emotional conflicts, which are probably as common among the bright as among the dull, etc.—their personal living, job performance, and civic service often range far below the levels of their competence in college or out. Thus far, educational-vocational counselors, like the institutions they serve, have done little to correct the situation,

having spent more time, effort, and money on remedial work for borderline and failing students than upon salvaging high-ability ones marked by underachievement. There is a present trend toward intensive study of this problem, solutions of which offer as great rewards to counselors as any in the field. This does not, of course, mean that the scholastically bright students should be helped to the exclusion of aid to those who have to struggle and study long hours to make the grade, but it does mean that the myth must be destroyed that those who succeed in passing courses, even with highest grades, know by that token that they are on the right route and proceeding under growing power and having no difficulties.

Vocational

1. No choice of an occupation. Counseling students who have made no selection of a future career is not so simple a task as it might appear to be because of the range of reasons that lie behind failure to do so. Some young people, overprotected by families of means, have become mildly or extremely parasitic. Living comfortably, having most of their wants and needs satisfied, they concentrate their thinking and feeling on the present and have little or no concern for the future, which "will take care of itself." Others, particularly young women, dream of themselves simply transferring from full dependence upon parents to leaning upon a husband financially able to take the same kind of care of them. Few of them have even a foggy notion that happy marriage and the creation of a satisfactory family is a difficult career in itself demanding continued study of its many aspects. Still others are not ready, even in college, to choose a lifetime work. One of the myths of our culture is that everybody, without exception, must settle upon a vocation by the end of high school or early in college. Many vocational problems, all bound up with emotional conflicts, stem directly out of this societal pressure for early

decision. Experienced psychologists and counselors know that individuals vary enormously in readiness to choose a lifework. Some are settled at age ten in a wise choice and never veer from it, and child prodigies even earlier. Others, after exploring and adventuring profitably in many lines, are ready to fix upon one at age thirty or even later. It may be well for counselors to keep in mind that some humans, like spring plants, bloom early, and others, like asters and chrysanthemums, produce way late. Still another type of no-choice student is one who is so bewildered by the thousands of jobs available to him that he gets more and more stubbornly set against picking out any of them.

2. Uncertain occupational choice. Among counselees of this ilk we see many variations between two extremes. At one end of the scale is the youngster who is emotionally numb, who has little curiosity and few, if any, enthusiasms, who on any standard test of interests shows intensity in none, and who, when pressed by parents or counselors on the necessity to state a choice in order to choose a curriculum, says he "doesn't care" or commonly takes the advice of whoever saw him most recently. He drifts from one tentative decision to another, getting more and more confused and uncertain as he does so. His record of transfers from curriculum to curriculum in college, and of shifts from job to job afterwards, reads like the fragmentary biographies of a dozen men instead of one. At the other extreme of uncertainty is the student of high ability who can get top grades in almost any field and who, on the measure of interest, comes out with top intensity records on a half dozen quite unrelated job areas. Choosing one from among these, when all are highly attractive and ability levels are equal to any of them, is a complex and tricky business. We have known some students in this quandary to decide on the flip of a coin, best three out of five. We have known others to build rich and satisfying lives for themselves by choosing the one that seemed to offer the most promise and then developing the others as subsidiary professional aids,

contributing to job competence, or as hobbies. Thus, one counselee the authors knew, having high ability, showed in his freshman year A-plus ratings on Strong's Vocational Interest Blank in medicine, law, psychology, journalism, music, and physical education. Without tracing the detailed ramifications of his development over a twelve-year period, since he chose medicine, we find now that he is a practicing successful psychiatrist, with a specially useful knowledge of the laws pertaining to the field, with an unusual power to write and speak in simple, clear, and vivid language. Furthermore, he recovers from the fatigue of helping troubled patients by many hours of playing the violin, attending concerts or listening to recordings, and by golf, tennis, and fishing, in all three of which he is high in the ranks of amateurs. It is clear that, by thus building on all his measured interests, he has attained deep insights into many kinds of people, has made himself unusually competent professionally, and has much enriched his personal and family life.

3. Unwise vocational choice. Of these there are legion, as indeed there must be until American education and counseling can have both a continuing, accurate job-forecasting and job-analysis service and a nationwide coordinated network of skilled counselors working in schools, colleges, business, industry, and the professions. Basically, as we shall attempt to show in the remainder of this chapter, these choices are unwise because of a variety of different discrepancies. Some causes are disparities between measured interests and abilities, between stated and measured interests, between abilities and level of occupation chosen (which may be too high or too low), or between abilities and interests which may be aptly geared together but out of line with personality structure, emotional patterns, social skills, etc.

In the light of this discussion of Williamson's categories of educational-vocational problems and our comments upon them, it becomes clear that the individual student must ac-

quire as complete understandings as possible of the following:

1. Of himself in terms of his achievements, abilities, aptitudes, interests, motives, attitudes, and drives.
2. Of this personal dynamic structure in relation to the various occupational groups within which he may operate with greatest hope of success.
3. Of the training necessary to develop essential knowledge, skills, and behavior patterns and of the institutions and curriculums in which they may be best obtained.
4. Of the world of work and workers to which he must adapt himself, not only in his own field, but also in those that relate to, and interact with, his own.

If all these were acquired by all, or most, students, a majority of our educational-vocational problems would disappear or be relegated to a minor place in counseling. Most counselees, however, possess only fragmentary bits of these understandings, and these pieces are usually bound by dreams and myths into unreal fantasies about all of them. Hence the counselor's complex task is to help students to strip away their illusions and replace them with ever clearer realities. To do so demands an increasing body of teachable concepts at the various degrees of student progress toward insight and understanding. Our approach, therefore, is toward clarifying some of these teachable concepts as a supplement to the treatment of them by Williamson.

The first of these concepts is that, in making an occupational choice, a counselee actually selects a broad field or occupational family. Moreover, because many individuals possess multipotentiality of abilities and interests, we find the range of choices broadened to include combination field occupational outlets of increasing importance to modern society. For example, there is a crying need, and will be for years to come, for workers who can bridge over the vast gap between science and technology on the one hand and the social sciences on the other, especially in relation to

atomic fission and its impact upon politics, law, economics, and the social structure of our culture. In simpler but similar fashion there has long been a demand for men and women who combine in themselves abilities and interests in both scientific and artistic fields, so that they may reproduce accurate enlarged drawings and paintings in color of the brain of an earthworm, the cross section of a cancerous tissue, the leaf, flower, and root of a plant, or the design of a complex gadget. Much of the present progress in radio and recording has been made by people who combined talents in science, mechanics, and music. Examples of families of occupations are the mechanical, clerical, computational, scientific, social, artistic, and musical fields. Illustrations of combination fields are scientific-mechanical, scientific-artistic, scientific-musical, social-clerical. Usually and unfortunately, counselees have no notion of this range of choice. They tend to attach a specific and highly restricting label to what they think they want to do and often are overcome by a sense of hopelessness when they find their actual capacities and interests do not fit the descriptive analysis of the highly specific job they have named. Meanwhile, all around this specific task are others into which they would fit with ease and satisfaction. To teach youth this concept as a basis for their educational-vocational decisions is one of the important functions of the counselor. This implies that it is always best to take an observation flight over the whole school and job terrain before picking a place to land and that time so spent saves much energy, confusion, and misery.

The second major teachable concept is that of *level* of occupation. This posits that in all lines of work there is a continuum from the simplest unskilled to the most complex professional and administrative task. Thus, to carry on the work of a hospital there must be a coordinated hierarchy of workers from the unskilled charwoman, through janitors, repairmen, orderlies, student nurses, trained nurses, supervisors, interns, fellows, doctors, an executive director, and a

board of trustees who form policy by viewing the whole complex. Hospital operation is closely allied to many other fields, such as medical research, business administration, mechanical-scientific invention of tools, machines, and instruments for surgery and therapy, pharmacy, drug manufacture, sales and promotion of supplies and equipment, hospital architecture and engineering, public relations, etc. Within each of these related fields, there is a parallel scale of tasks from unskilled to high professional and managerial. In teaching this concept, counselor and counselee together must attempt to answer the question, "In what band on this scale will this student be likely to find his best, most appropriate level of operation?" The answers will be found in part by derivation from one or several occupational rating scales,[3] combined with measures of academic achievement, interests, aptitude, and general or differential scholastic "intelligence."

From these two concepts may be drawn a simple formula, useful to counselors, indicating five possible patterns of educational-vocational choice. These are

1. No choice.
2. Appropriate field—appropriate level.
3. Appropriate field—inappropriate level.
4. Inappropriate field—appropriate level.
5. Inappropriate field—inappropriate level.

Each of these conditions may be complicated by continu-

[3] Typical examples of "level" scales are

Beckman, R. O. "A new scale for gauging occupational rank," *Personnel Journal*, 1934, 13:225–233.

Bingham, Walter Van Dyke. *Aptitudes and Aptitude Testing*. New York: Harper & Brothers, 1937. Pp. 51–52.

Harrell, Thomas W., and Harrell, Margaret S. "Army General Classification Test Scores for Civilian Occupations," *Educational and Psychological Measurement*, 1945, 3:229–239.

Paterson, Donald G., Gerken, Clayton d'A., and Hahn, Milton E. *The Minnesota Occupational Rating Scales*. Chicago: Science Research Associates, 1941. Pp. 58–73.

ing uncertainty on the part of the counselee. Stone[4] has demonstrated that college students who have made sound choices are just as likely to change to poor choices as those with poor ones are to change to objectives judged by counselors to be appropriate. Experimentation cited by Stone indicated that unless many counselees, having chosen appropriate vocational goals, had access to counseling, their choices were not fixed. He shows that if the choice was not confirmed and stabilized by the counselor it was often shifted by the casual advice of someone untrained for counseling. In fact, much of the counselor's most effective work often proves to be "confirmation of educational-vocational choice" in such cases. In this study it was found that college students exposed to certain types of group orientation tended to become quite realistic in their determination of their appropriate level, but that they were likely to go astray when they considered possible fields of work.

Occupational multipotentiality creates further complexities in the solution of educational-vocational problems. As has been suggested, any occupational field affords a large number of related patterns of work at various levels. Roughly speaking, the 10 per cent of the student population most gifted in scholastic abilities becomes the professional and executive group of gainfully employed workers if they are not barred from training by misguidance, discrimination, financial or personality restrictions, or from getting adequate preparation, or if they do not fail for these same reasons to get work at their proper level. While such individuals who possess enough ability and training to belong to this group will tend to win their way into jobs at a level commensurate with their abilities, counselors know that they

[4] Stone, C. Harold. "Evaluation program in vocational orientation," in *Studies in Higher Education. Biennial Report of the Committee on Educational Research*, 1938–1940. Minneapolis: University of Minnesota Press, 1941. Pp. 131–145.

See also *Educational and Psychological Measurement*, 1948, 2:161–185.

usually are competent to perform the functions of hundreds of lower level jobs in the field. For example, a naval admiral is usually skilled in ship operations, navigation, aiming and firing guns, scrubbing decks, etc., but does none of them, and a college president may know how to teach biology or operate the heating plant. Some of these individuals with high verbal abilities prefer to earn their livelihoods at levels well below their potentialities. The authors have known a number of these. They often quite ably work out a life pattern for themselves in which their jobs serve only as a financial base of support and neither consume much time nor demand strenuous effort. Instead they pour their time and energy into devotion to happy family life, voluntary public service, and pleasant so-called "leisure-time" activities, such as music, art, gardening, and the like. While such patterns of behavior are contrary to our general cultural mores, there appear to be a growing number of persons in our society who adopt them. This may well be evidence of a trend in our society as steam, electric, and atomic power replace muscle power in both productive and service occupations.

On the other hand, as we have seen, many individuals strive to enter training and occupations at levels higher than their abilities warrant. Some of these seemingly borderline cases, apparently through sheer drive and intense motivation, are successful, being the exceptions which prove the rule.

If we consider happiness and personal satisfaction in the vocational aspects of life as important criteria of success, if we can assume that society will not be injured by a few less competent workers in high places, then a counselor may feel justified in sometimes weighing heavily these drives and persistence factors in the counseling process. Moreover, even those of little ability can perform successfully in a surprisingly large number of low-level jobs. One need only to turn to the *Dictionary of Occupational Titles* to verify this assumption. The counselor must consider all of these factors and attempt to help the counselee to discover a range of

highest performance levels which will not exclude the individual's potential.

The "Funnel" of Preparing for, Entering into, and Succeeding in an Occupational Field

The heart of all counseling is prediction. As counselor and counselee explore and develop together means by which the counselee can understand himself and his dynamic environments, they begin to project these into the future, to plot directions, and predict probable outcomes if one or another course is followed. Prediction as used here does not imply merely a series of regression equations in the statistical sense. Instead we must deal with the innumerable variables which are present when a dynamic individual reacts with an environment which is also dynamic. Hence, counselors are forced to base their predictions upon the counselee's growing understanding and decision and upon the counselor's clinical insight and judgment as to weighting determinants which are too complex for clear verbalization unless cast in the most general terms. Another principle operates at this point. It is that the counselor's predictions can extend over a very long period of time only if cast in the most general terms. The more specific the prediction, the shorter the distance ahead in time it can be projected.

Corollary to this principle is another that the younger the child being counseled the less valid are specific predictions of his future course of development. While general clinical guidance of young children is a growing function of elementary schools, its power to project probable developments for any child is much more limited than with young people or adults. The different aptitudes, abilities, and interests of children at this age are not amenable to accurate diagnosis. If valid and reliable tools are possible for such diagnosis we do not as yet have them. Strong[5] shows that interests are learned and that in part because of this, interests

[5] Strong, Edward K., Jr. *Vocational Interests of Men and Women.* Stanford University, California: Stanford University Press, 1943. See especially Chaps., 12 and 13, pp. 246–313.

in young children are not usually settled and persistent but variable and veering, and hence they are not accurately measurable nor valid as predictors. Only concerning probable success with tool subjects in school work are our predictions of children's success reasonably good. But the long prediction from performance and testing on such subjects to occupational success twenty years later is very unreliable and invalid. Consistently to predict life vocational pattern, even in terms of field and level, for children or youngsters in the early teens is usually beyond the skill of the best of our clinical diagnosticians. As age level rises, prognoses become increasingly firm, especially if competent counseling has been done all the way along and cumulative case histories are available. But counseling at any age level presents fascinating problems. The child who leaves school in the intermediate grades to go to work needs information and help quite different from that which we can give to the youngster who is completing high school.

The college student or youth of equivalent age and ability affords the counselor more latitude for applying available psychological tools and techniques with fair predictive results. These principles and their application are important. Their application is often difficult, for they run counter to parental ambitions, dreams, and illusions about their offspring. Many parents are firmly convinced that a boy who cuts up a dead rat at age ten will be a great surgeon at thirty; that one who builds mud dams in the flowing gutter after a spring rain will, by that token, surely develop into a professional civil engineer constructing Bonnevilles or Hoovers. With such fixed notions, with the idea that selecting a career and an educational route to it is an *event* instead of a long-time *process,* and with the conviction that their predictions of a son's or daughter's life patterns are valid, they are frequently doomed to disappointments and frustrations. These they turn heatedly upon the children and often upon their counselors.

The "funnel" process concept of educational-vocational counseling and final induction into a threshold job takes

these and other considerations into account. It adds the fact that most commonly young people cannot begin in top jobs. Competition with the fast-increasing proportion of experienced adults in our working population and youth's own sheer lack of experience force them to accept relatively low-level jobs at the threshold of work when school is done. Perhaps, in the majority of instances, these initial jobs are not directly related to the adult vocations into which they will settle by middle age. This means that younger people, especially if not professionally trained, are sentenced for the time being to the low-paid, routine, dirty jobs. These jobs may bear little relationship to their most valid measured aptitudes, interests, and aspirations. However, this does not mean that they are tied to such tasks for life or that experience gained from such work is wasted. Attitudes, work habits, and the feel of employment may be acquired. Moreover many profit richly from the opportunity for negative exploration; from the chance to find out with certainty what they do *not* want to do. In this connection it should be said that skilled counselors do not worry, as young people and their parents too often do, about "blind-alley" jobs. It is doubtful that there ever has been any such phenomenon as a blind-alley job. On the other hand, counselors and employers know that there are and have been many blind-alley people. Any job can seem a blind alley for a person whose potentialities go far beyond its limits but who, for largely attitudinal reasons, remains in a job far below his potentialities.*

* The writers do not intend to imply that thousands of men and women are not caught by environmental circumstances, such as wars and depressions, which are beyond their control and which force them to remain in unsuitable occupations. These conditions do not stem, however, from the nature of a particular pattern of job functions. One of the most fruitful fields for the counselor is the discovery of means whereby this concept can be brought home to his counselees so that they can better make use of their assets and minimize their liabilities on low-level, threshold jobs in preparation for promotion to better ones.

In the nonprofessional occupations there are a number of ways in which one can enter a field and move ahead. These channels are simply presented in Fig. 1. Whatever the level

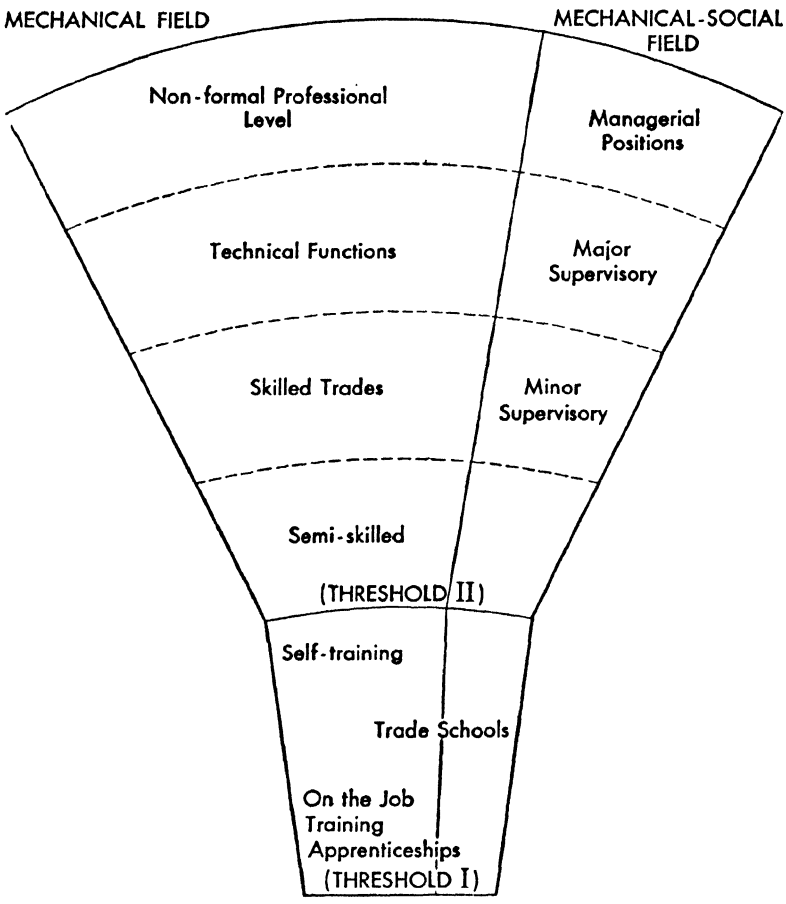


FIG. 1. Job-threshold "funnel" in the mechanical and mechanical-social fields for occupations demanding a minimum of formal education for successful job competition.

of formal education completed, the entrant into a field (in this example the *mechanical* and *mechanical-social* fields) can utilize employment at unskilled work as sweeper, packer,

or stockboy, to get on-the-job observation and training, apprenticeship, trade-school education on a full or part-time basis, or self-training by reading and practice at home, to cross the second threshold into semiskilled job competition. Many of the unskilled and semiskilled jobs require training of only a few minutes to a few hours before an alert worker can perform necessary operations with satisfactory speed and precision. Work at this beginning level may be, and often is, in itself on-the-job training for more complex, skilled work at a future time.

Most of the occupational fields with which we shall be concerned in this book are complicated by overlapping with other broad vocational fields. In Fig. 1 the overlap with the field of *social intelligence* is used because it overlaps with nearly all other fields for some types of work. Not only are there job openings dealing with objects in three-dimensional space and with the symbols which represent these physical relationships, but there are increasing numbers of opportunities for those who must deal smoothly and effectively with personal relationships among or between workers operating with things. Because they are likely to be inexperienced in handling people, young workers are seldom given such personnel supervisory duties in their early positions.

The young worker who shows promise and is interested in the field in which he has made his start moves from the threshold job to more complex duties, first at the semiskilled and then at the skilled level. He may win this promotion by using a training program such as an apprenticeship. In rare cases he may skip over one or more stages if he is unusually apt or if labor in the field is in short supply. He may make this progress in months, or it may take years. The training program usually includes many minor duties and operations which are semi- or unskilled. He still is in the narrow end of the funnel. Once having performed well at the skilled level, if his mechanical intelligence is good and his interests and drives well channeled, he may take the next step up into the technical level of mechanical work. Here

he is less subject to routine supervision. He makes decisions which affect the work of others and must demonstrate both a practical and a theoretical grasp of many aspects of mechanical-field jobs. As he climbs, many with whom he has worked will stay behind, since the percentage of those employed at lower levels who make the grade to technician from unskilled jobs is small and the skilled are fewer by half than the semiskilled and unskilled workers.

A very few of the technicians will extend their operational competencies to professional engineering without a formal, full-time, college education. A few will do so by attending night school, reading intensively and continually in professional literature, and taking every opportunity to observe and ask questions. A few possess, through high scholastic ability enriched by varied experience, unusual insight into abstract concepts related to mechanical tools and processes, so that they are able to reach the professional level. Numbers of men with such combinations of aptitudes and abilities are discovered under the demands and pressures of modern technological warfare. If such a one is also adept at handling people and is at home in such matters as building group morale, generating a spirit of friendly cooperation and teamwork, and smoothing out conflicts, then he may find himself in a supervisory or managerial post, reached because of this combination of demonstrated mechanical ability and social efficiency. Viewing the progress of such a worker, after he had attained high-level promotion, we are bound to raise the question as to just how well any counselor, years before, could have predicted this an outcome for him?

The answer, of course, is that such specific, long-range prediction is impossible. If we assume that the person who reached the level cited above had left school at completion of the eighth grade, counseling at that time, however thorough, would have had to be largely in terms of how to find a job, abetted, perhaps, by some help in interpreting whatever meager evidence of special abilities and interest in a mechanical occupation may be had.

It becomes clear, from this approach to the problem, that "terminal vocational guidance" of leaving pupils in the elementary and early high school years is fraught with great difficulties. However much it may be needed by youngsters, demanded by society, desired by parents, and supported by schoolmen, its operation must depend, so far as we can now see, largely on best guesses, based on little valid diagnostic information, its results tentative, and its predictions short-range. About all that can positively be attempted by a counselor assigned such a task is

1. To judge level of scholastic intelligence on the basis of longitudinal school record and class achievement.
2. To explore interests which, as we have seen, at these early ages tend to be quite varied, shifting, and unsettled.
3. To keep informed of the increasingly shrinking employment market for teen-agers in the restricted local area and work out a placement and follow-up system.
4. In the counseling interviews, to do whatever is possible to destroy the counselee's fantasy of office boy to president in one easy leap and, on the contrary, to correct any anticipatory feelings he may have of getting trapped in a blind-alley job. This should be accompanied by discussion of useful attitudes that generate habits of being on time, keeping alert to chances to serve, observing keenly the details of tasks at a higher level than his own, and the like.
5. To make it clear that in the counselor he has an appreciative friend with whom he can check from time to time his on-the-job successes or anxieties and problems.

This discussion drives home further the point that the greater the chronological age and general maturity of the counselee, the more likely it is that our longitudinal case history will supply clues which will aid us in helping the counselee to project his potentialities into the future and arrive at fairly sound predictions. Within limits, the greater the chronological age of the counselee the greater the reliability and validity of the psychological tools of the counselor in aiding the individual to reach acceptable alternative plans

of action. Even with older subjects, the counselor is still on treacherous footing if he attempts to make *specific* predictions very far in advance until the individual has reached an

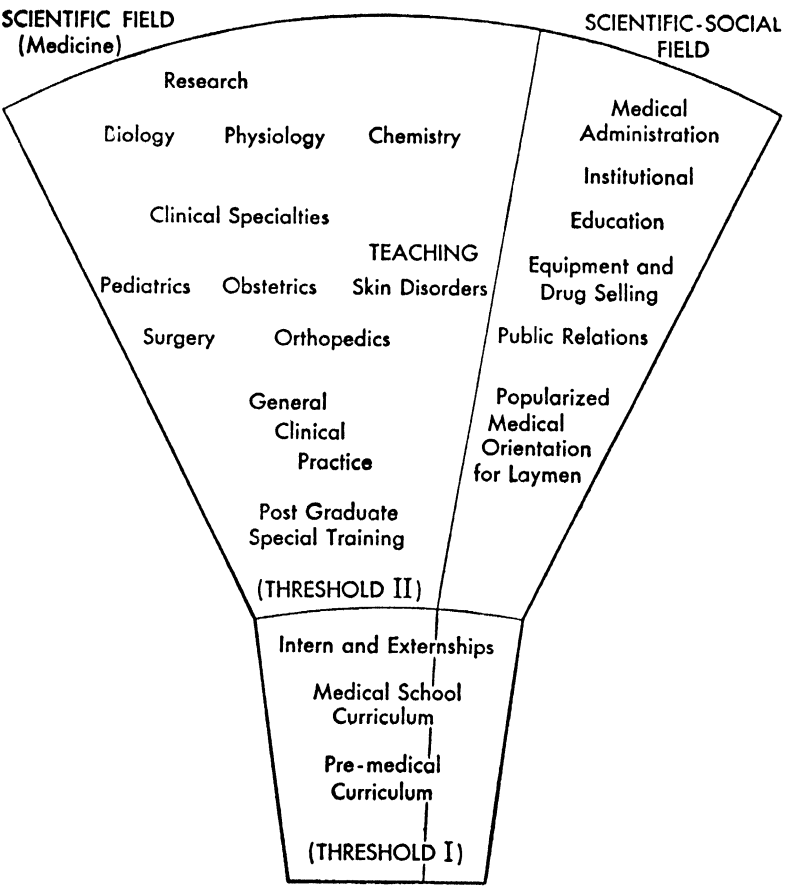


FIG. 2. Job-threshold "funnel" in a scientific and scientific-social field at the professional level.

age where vocational aptitudes, abilities, and training are clear and probably unsusceptible to any considerable change and where the range of opportunities is narrowed to a few well-defined areas.

Our second example deals with the professional level. Because *medicine,* as a label within the *scientific field,* affords a relatively sharp focus for our funnel, Fig. 2 is based on this outlet. Inspection of Fig. 2 will reveal that the source of candidates for training is the vast pool of individuals with a high school diploma or the equivalent. For those among them who dream of becoming doctors, the high school counselor is not called upon to predict success or failure for his counselees in actual medical practice eight or more years later and beyond. His only quite specific prediction is cast in terms of the candidate's acceptability to colleges which offer the premedical curriculum, and, in competition with hundreds of others, for the comparatively few places open. Within limits, he can make fairly accurate predictions of general academic success in college. He may be on firm ground if, having a fairly complete case history and diagnostic test and interview results, he predicts probable success in "a scientific field at the professional level, for example, medicine."

From this point, if the candidate is accepted by a higher institution, the college counselor takes over. From the various data which the counselee brings with him and additional information collected after arrival at college, certain more specific predictions can be made relative to what will happen as the student moves through the required premedical curriculum. But the counselor is not as yet able, or willing, to predict success or failure in the practice of medicine. He is predicting probable performance in the premedical curriculum, and he *may* feel confident enough in his data to predict performance in medical school.

With his premedical work successfully behind him, our candidate applies for admission to the medical school. His acceptance will depend not alone upon high grades in the required preparatory courses, for the relationship between these and success in medicine is by no means so close as many people assume. Other factors will be considered, such as his personal appearance, whether or not his father

was a physician, his academic record, the reasons he gave for desiring a medical education, his behavior and speech in an interview with a dean or professor of medicine, and, perhaps, the results from certain special tests now widely given which help to measure his ability and interest and to forecast success *in the medical curriculum.* Even at this advanced stage of progress toward his goal, no one is yet predicting his success as a physician. He must now weather a harassing two to four years of study, laboratory, and observational work, all involving a prodigious task of rote memory and a heavy time- and energy-absorbing schedule. If he survives comprehensive and detailed examinations over this mass of material, he enters upon a round of supervised clinical activities. At this point, as he moves toward graduation, some counselor estimates can be made as to his best outlets in the various fields of medicine, such as surgery, internal, obstetrics, etc., and the probabilities of his success in practicing one or another of these. His embryonic bedside manner, his accuracy of diagnosis, his relationships with other doctors and the nursing staff can now be directly observed. If he lasts out these years of clinical work, gets his M.B degree, and moves on into an internship, we can now predict with some accuracy that he will be a physician. Differential predictions as to his special field now become more firm and will probably lead him into a postgraduate fellowship extending his formal medical education by from one to four years more in highly specialized work in surgery or psychiatry and psychoanalysis. Or he may route himself to research in a bewildering number of directions only indirectly related to the practice of clinical medicine, such as the biological sciences, biochemistry, and biophysics. Or he may discover that he prefers teaching in medical schools or in the field of preventive medicine, or becoming an administrator of medical institutions such as hospitals, student health centers, or community health agencies, or practicing industrial medicine calling for qualities and additional training not earlier foreseen.

Figure 2 shows in simple schematic form how maturing interests can bend the young medical man toward processes and the interactions primarily in the physical world, or toward medical outlets which concern persons and personalities and the dealing with human problems. So complex and variegated is this field that, unless skilled counseling is available at every stage, the candidate is likely to find himself rejected or off on detours ending in dead ends. The Chinese proverb of the thousand-mile journey beginning with but a single step is the key. The direction of that first step and the next, and next, and next, is extremely important to him and to the society he serves. The counselor can provide no large-range and long-time road maps drawn to scale, but he can provide as-yet-crude compass bearings which will help, again and again at many crossroads, to point general, clear directions to open and occupationally satisfying routes.

From this brief review of some aspects of the nature of educational-vocational problems a generalization or two and several specific conclusions may be drawn. First, it is clear that discrepancies between interests and abilities are the sources of many such problems. Even though choices are made which match aptitudes and abilities to field and level choices, the counselee may not be able to adapt himself satisfactorily if his interests do not coincide with the ability pattern. Abilities and interests may be congruent but training opportunities may not be available because of limited finances, pressure of other responsibilities, etc., to make the combination effective. As Darley[6] has indicated, circumstances may force individuals into jobs outside the areas of measured occupational interests and thus satisfaction can be obtained only in avocational activities. Hoppock[7] well

[6] Darley, John G. *Clinical Aspects and Interpretation of the Strong Vocational Interest Blank.* New York: The Psychological Corporation, 1941. P. 57.

[7] Hoppock, Robert. *Job Satisfaction.* New York: Harper & Brothers, 1935.

describes this kind of problem in his valuable book, *Job Satisfaction.*

Second, it is apparent from the discussion so far, and it will become increasingly so in the following chapters, that the educational-vocational problems of high school and college youth are of such great variety and complexity that they cannot be lightly or casually dealt with by amateurs, whether these be subject-matter teachers, parents, relatives, or friends. Instead, if the reader will digest the references at the end of this chapter, it will become obvious that the minimum training requirement for sound counseling is that summarized in Chap. 1. From these and from what has been said above, the following list of findings and hypotheses may be drawn both to crystallize our thinking so far and to serve as a foundation for further discussion:

1. Educational-vocational choices of youth and young adults are not usually made with adequate information about self or the world of work (Gilger, Valentine).*

2. There is no conclusive evidence that counselees in the higher brackets of academic ability make more appropriate educational-vocational choices than those less fortunate (Carter).

3. Attitudes and interests are extremely important concomitants of appropriate educational-vocational choices (Carter, Darley, Strong, Nelson and Nelson).

4. There is no conclusive evidence that having a vocational choice results in better quality performance in a formal academic training program (Williamson).

5. No educational-vocational choice may be, for many individuals, as good a condition as choice and a better condition than poor choice (Williamson and Darley).

6. There is little evidence that the educational-vocational problems of individuals can be solved, or even ameliorated, by group methods of instruction or "group counseling" alone (Stone).

* The references in this list are cited in the bibliography at the end of this chapter.

7. The family, often one of the poorest but most prolific sources of counseling, is frequently the major factor in determining educational-vocational choices of youth (Peters).

8. Many studies have shown that choice is often based upon wishful thinking, impracticable aspirations, daydreaming, and a desire to give a socially acceptable answer (Carter).

9. Educational-vocational choices at high school and college age should most frequently be concerned with thresholds to the world of work, not ultimate vocational goals.

10. The educational-vocational problems of the exceptionally able youth are often as severe as those of the less able and are sometimes more difficult to handle.

11. Specific educational-vocational choices decrease in validity as the period of prediction lengthens. Good choices at sixteen may be inappropriate at twenty-four (Strong).

12. There is a tendency for the more able to underestimate, and the less able to overestimate, their vocational potentialities.

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Chapter 4. THE TOOLS AND TECHNIQUES OF COUNSELING

With some picture of the functions of the counselor at various levels and in various special fields, his training, and the nature of the educational-vocational problems he will encounter, we can now consider the tools and techniques he uses to help his counselees solve their difficulties. It is a truism that he can be no more effective than his command over these instruments, which have been devised, fashioned, and improved over many years by thousands of researchers and practitioners in a number of disciplines, such as education, psychology, medicine, psychiatry, mathematics and statistics, business and industry, and the operation of war. Mastery of essential tools and techniques for counseling is a long and baffling experience for any personnel worker. As he begins to understand what is, to him, a new instrument, a novel method, it usually looks like a panacea for the diagnosis or treatment of human problems. Thus, at first, school counselors tended to hail "intelligence" tests of all college youth, and the measurement of the I.Q. in elementary and high school youngsters, as the ultimate solution of all, or nearly all, problems of educational counseling. It was assumed by many that such tests were absolutes, would pin down once and for all "brightness" and "dullness," would "separate the sheep from the goats," would serve as a firm, clear predictive device for forecasting the future course of any and all students. As exploration took us further and further from certainty into more and more recognition of the diagnostic and prognostic limitations of this type of tool,

bewilderment and frustration followed. It was discovered that the I.Q. was not fixed but "wandered" upward with favorable and supporting forces acting upon an individual and downward with thwarting and unfavorable ones. It was found that, while there might be a "general intelligence," it was clear enough, as results were subjected to intensive analysis, that this "general intelligence" was a composite of mental traits or factors showing up in an almost infinite variety of patterns of high and low abilities among students. Moreover, it gradually dawned on us that there are many other kinds of "intelligence" which may or may not overlap with verbal and scholastic, each of them important to the functioning of individuals and societies. For example, the OSS Assessment Staff in its report[1] presents a suggested partial list of intelligences to include aesthetic, social, scientific, administrative, mechanical, etc., as affected by and related to various appraisable abilities such as observational, evaluative, interpretive, memory, conceptual, imaginative, logical, predictive, planning, manipulative, etc.

Making the skillful use of a tool even more difficult and confusing is the necessity for the counselor and his counselee to determine what differential clinical weight to give to the results in a given situation for a unique counselee. In one instance, for example, a score obtained on a test of achievement in higher mathematics will be of primary importance for determining future educational-vocational routing. In another, it may have no bearing of consequence and may be ignored while tested interests and avocational hobbies may require heaviest weightings in analyzing alternative life patterns. Ratings of personality traits by the counselee's friends, by his associates, and sometimes by his enemies will unlock one door to satisfactory adaptation, whereas, in an apparently similar case, Rogerian therapy will clarify the problem. To know which tool to use, when to use it, and

[1] OSS Assessment Staff, *Assessment of Men.* New York: Rinehart & Company, Inc., 1948. P. 265. Section on Conception of Effective Intelligence.

how to weight its results, therefore, is basic to the development of any effective counselor.

Because directed prescription by him is to be used only as a last resort, even when he understands the problem and sees clear-cut alternative actions which will provide sound resolution of problems, he must help his counselee to gain insight, to see alternatives clearly, and to get ready to make a firm choice of action. This process calls for a particularly skillful setting of the stage to permit rapid and maximal learning by the counselee. Such counseling skills are not achieved from books or lectures alone. The best of training programs will leave the beginning counselor where he must go on alone, learning the use of his tools by practice which is often awkward at first, making blunders in method, but profiting from his mistakes. A massive counseling literature is replete with information about methods of diagnosing human conduct for the purpose of planning and predicting future behavior.

Our purpose here is to give brief mention of the various tools and the techniques of properly using them. This may serve to refresh the memory of the reader and aid him in his review of the original source materials. The reader is referred to the page footnotes and the bibliography at the end of each section for some of these sources. The tools treated in this and the following chapter are

- Counseling records
- Autobiographical tools
- The interview
- Standardized tests
- Anecdotes
- Sociometric devices
- Systematic case study
- Rating scales
- Observational techniques
- Semantic processes
- Instruction as a supplement to counseling
- Occupational information
- Statistics

In considering the various tools and the techniques for their use, the counselor should never lose sight of the twin criteria of all psychological tools—validity and reliability.

Perfection is not the practical goal of the clinical worker; his constant target is a series of hard-won small gains tomorrow over what he can do at present. A 5 per cent gain in accuracy of diagnosis, a treatment which increases by 3 per cent the efficiency of problem resolution, or a fractionally more accurate prediction of outcomes from complex sets of variables are all major battles won. In much of his work the counselor is forced to utilize a tool of low reliability, accompanied by techniques of doubtful validity because they are the best as yet at his command. Even though this be the case, he need not feel that he is placed in a more precarious position than the physician or the lawyer. The validity and reliability of Dr. X's tools and techniques in diagnosis and treatment of health problems are often unknown quantities, as are those of Mr. Y in handling a complicated divorce case with insight and justice. We turn now to consideration of the counselor's tool kit and begin with records.

Records for Counseling

Perhaps one of the greatest difficulties with records in the counseling program has been a sort of pack-rat habit of keeping them for the sake of keeping them. To avoid or break this habit certain general rules are effective. Traxler[2] has already stated some of these rules which, as he lists them, are phrased to apply to counseling in the years from nursery school to junior college but are, in fact, also applicable in higher and adult education. His statement of the rules is as follows:

1. A comprehensive and detailed system of cumulative personnel records is indispensable for the proper functioning of the modern school.

2. The most important purpose of personnel records is to improve the instruction and guidance of each individual pupil.

[2] Traxler, Arthur E. *Techniques of Guidance.* New York: Harper & Brothers, 1945. Pp. 203–209.

3. Records are needed that will be continuous over the whole school history from the kindergarten to the junior college, and that will follow the child from school to school.

4. The personnel records for all pupils should be readily accessible to the entire faculty of the school.

5. The record system should be simple enough and well enough organized so that the essential facts about any given pupil will be brought together on one central record card or set of cards in such a way that they may be grasped through a few moments of study by busy teachers and counselors who are not highly trained in interpreting records.

6. An attempt should be made to keep the records high in reliability and comparability by basing them as far as possible on objective data.

7. The records should be uniform in type throughout all the schools of the local system.

8. The record system should provide for a minimum of repetition of items.

9. The building of a personnel records system for a given school does not begin with a consideration of records themselves; it begins with a study of the nature and purposes of the school and of the pupil.

10. If a school adopts one comprehensive cumulative record form as its basic personnel record, it should not only plan this form with meticulous attention to detail, but it should also carefully plan the forms which are to be used in collecting data which will contribute to the main record.

11. A detailed manual of directions should accompany the personnel records for the guidance of persons filling out or using the forms.

12. There is a natural and logical relationship between the information on reports made to parents and the information recorded for purpose of permanent record; this relationship should be taken into account in planning both types of forms.

13. A system of personnel records must not be static; it must be revised frequently as a school's theory of education changes.

14. It is imperative that a system of personnel records be associated with a program of teacher education in the use of these records.

Certain of these principles need qualification because of the differences in the development of counseling programs, size of school or college, and the type of approach followed. If we assume that a program, and the work of the counselors, should make for effective learning situations for students and, at the same time, impose no additional burdens on staff, then Traxler's first principle should be amended to close with the statement, "within the limitations of time and staff." Principle 3 should include upper division and graduate collegiate institutions and adult counseling. Principle 4, relative to accessibility of records to staff, should be revised to include a statement of caution against including information which can damage counselees at a later date. For example, it is an unwarranted procedure, followed in some institutions, to enter all items gathered and to consider anything entered in official records as permanent. Such records, listing, perhaps, a minor theft during adolescence, a temporary emotional upset in college, denial of admission to college, refusal of a job, or unfounded suspicion can invoke unmerited penalties years after the event occurred. Like the doctor or lawyer, the counselor must protect his counselees from exposure of confidential items and make it an ironclad rule not to reveal them without permission. For this reason most counselors have a locked file or else carry such information in their heads. To Principle 7 should be added "or all the departments and colleges of a university."

The writers would add five principles to those of Traxler. These are

1. Records should demand a minimum of clerical time. This is a combined philosophical, practical, and budget matter. Those administrators who have not yet been convinced of the importance and values of counseling to them and to their schools, who look upon it as a "fifth wheel" in education—a nice thing to have if it does not curtail something else—fail to provide adequate funds and personnel at various levels to operate it effectively. They load clerical chores on busy teachers, many of whom have little clerical ability or

training and who possess no interest in tedious and time-consuming jobs of recording and filing, which they do badly. In the authors' opinion more counseling programs have been inefficient, wasteful, and failures for this than for any other single reason. A teacher may strongly approve of a counseling program, see clearly how it can help students, parents, employees, school administrators, and himself, and yet build up a resentment against it and want to throw it out, if he is compelled to give up duties which he likes and for which he is trained, to spend hours typing and shuffling cards and forms. An efficient administrator or person in charge of counseling will avoid such situations at all costs. He may insist upon an optimal minimum of clerical work but he will provide skilled workers to do it in so far as he can. He will keep records simple, as Traxler states in his fifth principle, avoiding types which utilize complicated symbols and demand an understanding of statistics not often found among secondary and college advisers or administrator-counselors. He will omit the continuous inscribing of seldom-used items, and he will have students compile supplementary data on themselves for inclusion in their records. Only by such a process can he build the kind of system that helps him, his teachers, his students, and his school.

2. *Records should be tailored to the program and institution in which they are to be used.* While this seems an obviously sensible rule it is frequently violated by counselors who adopt elaborate and unwieldy standard profile cards under the illusion that they must be better than any home-made ones because they were fashioned by "experts." But such forms, while perhaps suitable for a long-established program, staffed by trained personnel, usually do not fit a beginning one. A profile adequate for a college may not suit a high school, or one planned for a technological institute may not be right for a college of liberal arts. It is best, therefore, to begin with a simple form containing only those items most common to the students and most likely to be used by the counselors and other members of the staff.

These will be revised and amplified as the program develops. This implies that first forms will be mimeographed—unless printing is cheaper—so that changes may be made with minimum loss. If the principle is violated and forms are set because they are printed and we do not want to "waste" them, we find ourselves often forcing our data to fit our bookkeeping, with a resultant loss of vital information and an accumulation of useless stuff.

3. *Records should contain only those items used frequently enough to justify their inclusion.* While homemade forms are recommended, it is clear that the many attempts to work out universal standard profiles have not been without benefit. One of their greatest contributions has been their careful investigation of the types and items of information of greatest general use in counseling. As a result, it is a fairly easy matter to employ one of these, as a guide only, to develop a simple form by selecting from the over-all mass of the standard comprehensive card those items that seem most relevant for a particular school or college. How well this has been done can be determined by the down-to-earth criterion as to whether, after some months' use, the corners of the cards or folders are soiled and worn or clean and untouched. Several factors determine the amount of useful wear and tear on the records. Among these are:

a. Valid selection of pertinent items. For example, items concerning parental health, students' summer activities, temporary bouts of illness, small emotional storms and anxieties, casual love affairs, or a nonrecurring family crisis are often ephemeral and their collection and recording are of doubtful value. On the contrary, other data such as parents' occupation and income, students' grades, present vocational choice, and work experience are generally needed concerning all or nearly all counselees.

b. General teamwork among those who use the records and their agreement on what is most useful. Preparation of the forms should, therefore, be a combined operation. Many items, if this is a cooperative venture, will be of consistent value to administrators, teachers of various subjects,

and to counselors. If a counselor prepares the form alone, he is almost certain to leave out items needed by the others, and vice versa.

c. Location of records. How much forms are used is partly determined by whether they are centralized easily in one accessible place or dispersed in several. If they are scattered, some in the principal's or dean's office, some in the registrar's, some in the teacher's daybook, and some in the counselor's desk, are they to be full duplicates of all materials about each student, or isolated segments of information? Fragmentary record keeping is always inefficient and inevitably results in faulty and inconsistent counseling. Duplication of full records is costly and is justified only when frequency of use makes it practicable. Centralization is usually the recommended practice where the physical layout and adequate protection from unauthorized snooping makes it possible.

4. Summarizing forms should be supplemented by other records valuable to counselors. While many data can be most effectively recorded on a single form, other materials, discussed later in this chapter, are best put in the folder temporarily or permanently as supplements primarily for counseling. These may be, for example, mental and physical health data reported by the psychiatrist, psychologist, doctor, dentist, or nurse, who usually have their own standard forms for such reports. Or they may be other materials more easily collected, and in greater detail than is possible on a profile, by such processes as an autobiography written in an English or psychology course, or a short paper written by a student on his educational-vocational plans or his relationships with his family. Frequently, too, the counselor will want to include, for the time being, his interview notes or a memorandum from a teacher on observations of behavior in class or out. Such supplementary materials are often of the utmost importance during the counseling process and can be discarded when their usefulness is gone. We shall consider these more fully later in this chapter.

5. Personnel records in schools and college should be built and maintained within reasonable limits by students. The amateur or neophyte counselor sometimes forgets that the data in his records of the lives of his counselees *belong* to them, not to him; that these form the basis from which their problems will move toward solution and on which their decisions will rest. If he remembers these two facts, it will then be clear to him that the more his counselees actively take part in the collection and analysis of information about themselves, the more he may expect them to grow in self-understanding. The authors' inspection of many hundreds of case records indicates that relatively few items in any of them need to be kept secret from the subjects whom they concern and that even these few could well be revealed if they are fully interpreted and at the right time. To permit counselees to build as much of their record folders as they can is, therefore, neither revolutionary nor impractical. That some neatness will be sacrificed is recognized but is unimportant. That some errors will occur is certain, but these can be corrected. The benefits to the counselees and the release of counselor and clerical time from digging out and setting down details more than compensates for these minor drawbacks. A review of most cumulative record forms reveals that the following items are usually best drawn from, and recorded by, students:

Name
Place of birth
Age
Stated interests
Vocational preference
Work experience
Support of self or dependents
Earnings
Educational plans
Home-study conditions
Time budget
Hours devoted to study
Hours consumed by commuting
Extracurricular experiences
Clubs, and offices held
Notable accomplishments
Father's or guardian's name, age, occupation, and education
Mother's name, age, occupation, and education
Brothers and sisters

In addition it is found to be helpful if the counselee records items from other sources, such as his school grades, yearly class program, and results of achievement, interest, aptitude, and ability tests. Those that, in the interests of accuracy, or because careful interpretation is needed, or because they are the business of a medical or other specialist, should be recorded by someone other than the counselee, include:

Physical disabilities (physician or nurse)
Health, physical (physician or nurse)
Health, mental (physician, psychiatric social worker)
Personality ratings (counselor, administrator, instructors)
Personality tests (counselor)
Academic intelligence tests (counselor)
Discipline (administrator)
Number of days absent (clerk)
Date and reason for leaving school (clerk)

Against this background of principles of record keeping some further discussing of this basic counseling tool and the techniques of its use may be helpful. It is clearly implied, in this summary so far, that there is much to be said for a folder containing all necessary materials about each case instead of attempting to reduce them all to a single master profile card designed as a continuous summary. Intelligible and useful condensation of many variable items, with details and shades of meaning, is a time-consuming task demanding the highest intelligence and insight. Particularly is this true of self-revealing autobiographies and other papers written by the counselee and of the case notes of the counselor.

When student problems require extensive counseling, then case notes on observations, analyses, interpretation of tests, etc., and interview notes are necessary. If the problems are complex and extend into social-emotional areas and their causes are deep-seated, these notes will be extensive. As Rogers[3] states:

[3] Rogers, Carl R. *Counseling and Psychotherapy.* Boston: Houghton Mifflin Company, 1942. P. 242.

It goes without saying, therefore, that very complete notes should, if possible, be taken during the interview, notes which record the counselor's statements as well as those of the client. A dialogue form, with statements condensed and abbreviated, has proved helpful.

Educational-vocational problems may sometimes require full notes but usually not so many, nor so elaborate, as are needed for social-emotional problems where subtle attitudes have such great importance and must be understood through clinical inference based, in part, on concentrated study of the notes. In either case, a systematic, organized recording of case notes is essential. Williamson and Darley[4] declare the importance of systematic method.

> The case history form (counselee-accomplished questionnaire) merely serves to summarize necessary background information so that the interviews can be devoted to intensive discussion of problems, rather than to fact finding. *It is impossible to overemphasize the importance and even necessity of systematically recorded summaries . . . of all interviews with students, parents, etc., for each case.* The experience of social workers has shown the impossibility of remembering significant details from interviews without the aid of written records. (Italics not in original.)

Traxler[5] also emphasizes this type of record. He states that

> Immediately after each interview the counselor should make a detailed written summary of the information secured. He cannot afford to depend for long upon his memory, nor should he, even if he could hold the facts in mind indefinitely, for a brief written record of the interviews which take place between pupil (counselee) and counselor, and also between the counselor and persons who know the pupil, will be an important addition to the cumulative record (case history).

[4] Williamson, E. G., and Darley, J. G. *Student Personnel Work.* New York: McGraw-Hill Book Company, Inc., 1937. P. 112.

[5] Traxler, *op. cit.*, p. 26.

As aids to systematic recording of case and interview notes, disk, wire, or tape recording instruments and dictating machines are found most efficient. They enable the counselor to dictate notes quickly at the end of an interview. When played back or typed out, they are easily shaped into final form. By these means he is helped to carry out his primary function, that of counseling with individuals. Most institutions now afford dictating machines which may be used for other purposes on a pooling basis with counseling.

To evolve an organized system for recording case and interview notes, it is suggested that a check list of headings be devised by the counselor in whatever arrangement seems to suit him best. The minimum essentials for such headings would probably include the name of the counselee; date and hour of interview; name of the counselor; identifying data about the student; the referring agent or agency; stated and underlying reasons for the interview; the counselee's statement of his problem; major topics of discussion during the interview; and the counselor's observations of the student's behavior during the session and his tentative conclusions and predictions. Noting predictions from time to time is of primary importance to improving their effectiveness, measuring progress, and checking errors. Finally, when a series of interviews reaches its conclusion, counselors record the alternative plans of action which have been jointly arrived at by themselves and their counselees, and the counselee's choice among them. It is wise to see that the counselee makes his own record of these final outcomes.

Because records are treated in great detail in the references at the end of this chapter, little further space is devoted to them in this book. The writers believe that the case history folder, with numerous types and items of record, fits the needs of the guidance program in the average educational institution better than more complex, albeit meritorious, kinds of standard summary records. The real

test of record usefulness is the dinginess of the folder corner used to take it from the files. *Clean records are unused records.*

The Autobiography and Related Tools

One of the potentially most useful tools of the counselor is the autobiography. Guidance programs are constantly faced with the problem of finding time to provide individual attention to individuals needing help. No tool which permits counselees to tell their own stories as they want to tell them on their own time should be overlooked. This is always true but particularly so when limitations of staff and time prevent many and long interviews with involved record keeping. Strang lists six tools categorized as autobiographical or closely related.[6] These are *the autobiography, life history, diary, controlled diary, questionnaire to students,* and *letter.* Her treatment of the autobiography and related methods is the most comprehensive of the materials readily available to high school counselors. College counselors, because of their usually better library facilities, can find and make use of other materials.

It is surprising to note the number of authorities in the field of counseling who ignore this essential type of aid to counseling or dismiss it with scant mention. Rogers[7] has this to say:

> Some counselors have encouraged clients to express themselves in writing between contacts. Autobiographical sketches or description of feelings in certain situations, are devices of this sort. To the writer it seems that such compositions are likely to lend themselves to an intellectual type of discussion, rather than to concentration upon present feelings, but *there may be fruitful ways of using them.* Some counselors give their clients "homework" of some variety between contacts, topics they are

[6] Strang, Ruth. *Counseling Technics in College and Secondary School.* New York: Harper & Brothers, 1937. Pp. 113–123.

[7] Rogers, *op. cit.,* pp. 166–167.

to think about, aspects of their situation which they are to observe. Such assignments may be highly directive, and hence unsuitable from the viewpoint of this book, or based on the client's own feelings and hence more helpful. Chassell makes use of a rather directive assignment of this sort, giving the client a copy of his "Experience Variable Record" to study during intervals between contacts. This instrument contains many questions about the client's emotional relationships to many aspects of his past and present situation. . . . (Italics not in original.)

Chisholm[8] states that

> The autobiography is not extensively used as a means for securing guidance information about students. Nevertheless, it does present possibilities. . . .
>
> Certain suggestions for the use of the autobiography seem appropriate. If the autobiography has any real significance for guidance, the writing should be done in a guidance setting and under the general supervision of someone with the guidance point of view. . . .
>
> The aim in the use of the autobiography is to encourage the individual to "speak his piece" so far as his reactions to the factors that determine his life are concerned. If the autobiography is to serve the purpose it should serve, it will bring to light a type of information which is difficult to get in any other way.

Controlled and Uncontrolled Student Autobiographies

There are two general types of autobiographies: the controlled, which outlines what is wanted by the counselor; and the uncontrolled, which permits the writer to order his information in any manner he desires. Counselors dealing with emotional problems usually use the freer method. Counselors screening students and collecting information with emphasis on educational-vocational problems, however, more frequently use the controlled autobiography. They do so because it permits the counselor to review very different life stories systematically and to know at what

[8] Chisholm, Leslie L. *Guiding Youth in the Secondary School.* New York: American Book Company, 1945. Pp. 229–230.

points they can find certain information. Another advantage is that, since educational-vocational problems are ordinarily less loaded with emotional factors, the controlled form can be used as an assignment in classes with large numbers of students, as in orientation, English, or psychology. An example of the controlled educational-vocational autobiography* is presented by Hahn and Brayfield.[9]

The uncontrolled autobiography, although it is more difficult to analyze in large numbers, is better suited to social-emotional problems. Released from restrictions imposed by a prepared outline, the student may unleash his flow of free association and reveal his anxieties, his conflicts, his dreams, with a range and depth not possible under formal restrictions. For these reasons the free autobiography is not so well suited for group use. In most instances the more it is used to collect information about attitudes and feelings of high emotional intensity, the more individualized the assignment should be. Rapport of a high order should be established between counselor and counselee before any attempt is made to have the student "tell all" on paper, although, as any teacher of composition knows, students will sometimes write in a theme of things they would not tell their parents or friends.

The length of the autobiography will vary with the objectives of its use, the type of problem about which information is desired, and the inclinations and writing facility of the counselee. Chisholm[10] recommends 200 to 500 words. This appears to the writers to be far too brief for adequate presentation of pertinent information about the problems of

* For an elaborate and detailed form of controlled autobiography at the college-adult level see OSS Assessment Staff, *Assessment of Men.* New York: Rinehart & Company, Inc., 1948. Pp. 84–89.

[9] Hahn, Milton E., and Brayfield, Arthur H. *Occupational Laboratory Manual.* Chicago: Science Research Associates, 1945. Pp. 10–11.

——. *Job Exploration Workbook.* Chicago: Science Research Associates, 1945. Pp. 6–8.

[10] Chisholm, *op. cit.*, p. 229.

students in senior high schools and colleges. The minimum length of 5,000 words suggested by Johnson,[11] even though the problems are in the social-emotional area, appears too long as a requirement for any but clinical depth therapy, although many counselees will write that much, and more, without urging.

Because educational-vocational problems are less fired with emotion and are commonly freely discussed by most secondary school and college students, the following recommendations are made for the use of the controlled autobiography with problems so classified.

1. A mimeographed or printed outline should be used. This recommendation is made to aid students to organize information and to aid counselors who use the autobiography as an item in the case history folder. This outline may be topical or cast in the form of leading sentences to be developed into full paragraphs.

2. Assignment of the task should ordinarily be in a classroom situation. One reason for this suggestion is use of the autobiography as a general screening tool to identify students with pressing problems who need immediate counseling and to determine types of problems. A second reason is to acquaint classroom teachers with the problems of their students. A third is that, with the majority of students, such assignments provide strong motivation for writing and vital class discussion. Such assignments are generally found most effective in psychology, educational psychology, English, orientation, and problems courses.

3. Counselors should review autobiographies systematically and in a reasonably short time after they have been received from the students. As has been pointed out, the controlled autobiography is one of the most useful screening tools in educational-vocational counseling. Because it is organized on a topical outline, a counselor can, with a

[11] Johnson, Wendell. "The influence of stuttering on the personality," *University of Iowa Studies in Child Welfare,* V, No. 5. Iowa City, Iowa: 1932.

little practice, learn to skim through the papers of a hundred or more or even of a whole high school senior or college freshman class. He quickly learns to spot the crucial sections that reveal indecision, no choice, or poor choice through ignorance or overidealization. He can locate trouble areas of conflict between parental wishes and student ambitions. He can pick up some blind spots in self-knowledge. Putting these together on a first rough estimate, he can make a fair judgment as to which students need counseling most urgently and immediately and thus work out and organize his interview and diagnostic testing schedules to serve the neediest first.

4. Students should be assured that, if they so request, the contents of their autobiographies will be kept confidential between themselves and the counselor. This assurance of protection is necessary in order to give students a sense of being able to write what they really think and feel without fear of being criticized. Even in educational-vocational problems some students do not care to show their hands. For example, when there is heavy parental pressure for the student to go in a direction which the student does not accept, he may wish for the time being to avoid conflict. Rather than risk a battle by disclosure of his own cherished plans, he will agree with what parents, relatives, or friends wish for him in order to save face and win social approval until he is strong and independent enough to move openly counter to them. The counselor is responsible for helping him with the important timing of his coming out into the open with his plans and preserving secrecy until he does.

5. Students should be informed that the counselor will discuss their autobiographies with them if they so desire. A clear announcement of this offer at the time the assignment is made will have two effects: it will motivate many students to do a good job of writing the autobiography by giving it a further purpose than getting a grade in the course; and it will cause numbers of those who most need counseling to ask for it. Thus it will serve as an additional check

on the counselor's list of counselees for immediate attention. Eurich and Wrenn[12] have covered this point and others relative to the autobiography in their excellent presentation of the "Appraisal of student characteristics and needs."

6. *Autobiographies should be planned to obtain the kinds of information not obtainable with other tools and techniques of greater reliability and validity or to supplement such tools.* Establishment of the reliability and validity of the autobiography and its related tools has lagged. To establish its reliability, particularly when its contents can be compared with known facts or previous statements, should not be difficult. But until reliability of a given form is established, it is safer to restrict its use to types of information which cannot be better collected by other means and as a helpful supplement to more reliable and valid tools and techniques. For example, the results of interest inventories, collection of claimed interests, and observation of behavior over a long period of time may all be more meaningful if we have before us the counselee's story of his experiences. Fryer,[13] speaking of the interest histories of superior adults, states: "The qualitative nature of interests is well illustrated. Here the autobiographical method is at its best, where the subject is trained in intellectual honesty and has had practice in writing."

The autobiography, sensibly used, offers the counselor in the secondary school and college a tool which meets most of the criteria of practicality and modest budget. It encourages counselee participation in the counseling process. It motivates serious consideration of common but trouble-

[12] Eurich, Alvin C., and Wrenn, C. Gilbert. "Appraisal of student characteristics and needs," *Guidance in Educational Institutions, Thirty-seventh Yearbook of the National Society for the Study of Education,* Part I. Bloomington, Ill.: Public School Publishing Company, 1938. Pp. 65–66.

[13] Fryer, Douglas. *The Measurement of Interest.* New York: Henry Holt and Company, Inc., 1931. P. 382.

some problems. It imposes no heavy additional chores on instructional staff or counselor. It is low in cost. It aids in developing longitudinal histories so needed to implement our cross-section techniques of questionnaire and tests. Strang[14] states the case well.

In spite of the weaknesses of introspection and the demonstrated inaccuracy of self-estimates there is, nevertheless, a place for subjective observation in the personnel worker's repertory of technics. The student's introspective reports frequently give clues to the meaning of his observed behavior; they aid in interpreting all kinds of personnel data. Moreover, the subjective observations of the students are essential in successful therapy because they enable the worker to begin at the individual's present level of receptivity and to enter into his field of feeling and thinking. Frankness and accuracy are essential if the record is to be of value.

The Interview

Unfortunately, but understandably, the counseling tools and techniques which can be practiced with the least preparation and minimum understanding are the ones most likely to be used. Hence, the interview is used as the major tool in most guidance programs despite the fact that it has been subjected to relatively little research in terms of its techniques and their reliability over the wide range of its uses and purposes. Symonds[15] states the difficulty of discussing the interview adequately when he says:

Another difficulty in discussing the interview is that interviews conducted by different persons differ in purpose and technique. Interviews are conducted by physicians, lawyers, priests, journalists, detectives, social workers, psychiatrists, psychoanalysts, deans, research workers, employment managers, anthro-

[14] Strang, *op. cit.*, p. 113.

[15] Symonds, Percival M. *Diagnosing Personality and Conduct.* New York: Appleton-Century-Crofts, Inc., 1931. P. 451.

pologists, sociologists, and others. The physician wishes a clear and accurate statement of disturbing symptoms, the priest wants a confession, the newspaper reporter wants a racy story or an unusual and significant comment, the social worker is anxious to discover social relationships, and employment managers are on the lookout for the aptitudes and character traits that make a man a valuable employee. The sociologist is particularly interested in the environment, whereas the psychiatrist allows his interest to become absorbed by the mental mechanisms uncovered. Each purpose requires its own technique, and it is difficult to describe them together under the single heading "interviewing."

The OSS Assessment Staff[16] declares the interview, despite its difficulties, to be the most important of all human appraisal techniques. Its report states:

> No procedure yet devised by psychologists for the study of a person can take the place of the clinical interview. At S— it contributed more heavily than any other procedure to the final rating of all personality variables. It provided the frame of reference in which all other observations were evaluated. . . .
>
> Though at S— projective techniques and situations were used to find out some of the things about a man that he could not or would not tell, this did not diminish the importance of what a man could and would tell freely. Nor was there any reason why we should have sought a substitute for the interview, for there was certainly no technique that yielded more that was relevant and significant than the hour and a half spent in listening to the candidate talk about himself.
>
> . . . . . .
>
> What did we obtain from the Interview? We learned, of course, what the candidate said about himself, his past, his wishes and fears, his hopes and aspirations. An important distinction was made between what he said that was factual, and what he said that belonged in the realm of fantasy, opinion and sentiment.

[16] *Op. cit.*, pp. 113–119. The entire passage on the interview is well worth any counselor's reading and absorbing in full.

The factual material was that which could be checked by independent observation or investigation. The subject told us at what school he had been educated, when he obtained his first job, what the members of his family were doing, how much he earned and so on. Facts of this order could be obtained from other sources, but it was convenient to ask the subject directly for them, and since in most instances the subject had no reason to conceal the truth and little reason to be biased, what he said could be taken at its face value, that is, as a statement of what actually happened or was happening. Much indispensable material of this kind was obtained in the Interview.

Most of the interview material, however, was made up of the subject's interpretations of reactions to what had happened in the past, and to his situation of the moment—avowals of opinions, sentiments, attitudes, wishes. Statements of this kind were not to be regarded from the point of view of their truth or falsity; they were simply expressions of how he thought or felt, and when they were considered in relation to other findings they were of the greatest importance for understanding the personality. . . .

Another kind of material was obtained by watching the subject's behavior in the interview situation, by noting what the candidate was most inclined to talk about, what he spoke of with the most satisfaction and the most distress, what were the topics which, when mentioned caused him the most embarrassment or inhibition. In other words, it often happened that *how* a thing was said seemed just as important as *what* was said, and it was only in the Interview that this aspect of the candidate's revelations could be appraised. . . .

The counselor working with a counselee on educational-vocational problems faces difficulty when he tries to standardize and routinize his interviewing procedures. Educational difficulties may be symptoms of social-emotional or other problems. Vocational indecision may indicate lack of understanding of self, of occupational opportunities, or of educational progress. Ability, aptitude, and interest differentials between and among counselees often necessi-

tate quite different approaches. In one case the counselor can get best results by passive listening, in another by rapid-fire questioning; in one by appearing warmly sympathetic, in another by seeming objective and hard-boiled.

Characteristics of the Interview in Counseling Clients with Educational-Vocational Problems

To understand the importance of the interview in counseling with educational-vocational problems, as well as with other kinds of problems, it is well to consider the literature regarding it. Myers[17] says:

> From what has been said concerning the nature of counseling it is clear that this service constitutes the heart of the vocational guidance program. All the services discussed thus far are brought to a focus in the counseling interviews. Services yet to be considered in detail—vocational preparation, placement, and adjustment in employment—stem from the decisions reached or confirmed by counseling.

Gordon W. Allport[18] has stated certain facts and principles about the interview so well that we quote him at some length.

> Unlike first impressions which, as a rule, are obtained incidentally in the course of an impersonal relationship, the interview seeks to secure directly as much information of a personal nature from the subject as is relevant to the interests of the interviewer. The method is age-old, but still of paramount importance in most fields of social investigation. Scientific studies of interviewing are as yet few in number, and are for the most part artificial and unsatisfactory, for a good interview requires variation and spontaneity, and only with difficulty can it be reduced to rules and formulae.
>
> Although interviewing is an art, it clearly involves the same

[17] Myers, George E. *Principles and Techniques of Vocational Guidance.* New York: McGraw-Hill Book Company, Inc., 1941. P. 254.

[18] Allport, Gordon W. *Personality, A Psychological Interpretation.* New York: Henry Holt and Company, Inc., 1937. Pp. 509–510.

three factors as do all judgment-situations. There is first the skill of the interviewer (probably the most important and most complex factor of all). Secondly, there is the openness or enigmatic quality of the subject himself. Thirdly, there is the selection and framing of questions that will reveal significant and trustworthy information concerning the subject.

In considering the third factor, one must first know what the goal of the interview is. Significant questions for the psychiatrist to ask might be immaterial for the census-taker. But assuming that the goal of the interview is *psychological, i.e.,* to obtain the fullest and most accurate knowledge possible of a personality, how should the interviewer proceed? He may use various published guides for the study of personality. Or he may have at hand a list of topics with the aid of which he can frame specific questions according to the progress of the interview. Or he may proceed in a planless way, letting one line of inquiry suggest the next. Ordinarily the second plan is most satisfactory, neither as rigid and mechanical as the first nor as loose and precarious as the third.

Paterson, Schneidler, and Williamson[19] point up our consideration of the interview as a tool of the counselor as follows:

> The interview continues to be the most subjective aspect of the diagnostic procedure. Despite its limitations, however, it is an indispensable step in the guidance program. Its purpose is threefold. It involves gathering all available pertinent facts, making a diagnosis on the basis of all the evidence, and formulating an appropriate plan of action in line with the diagnosis. . . . *All questions may not be settled in the interview, but to be successful, it should lead to some plan of action.* Its aim should be to serve the individual. *The counselor should serve the student, even though he may do no more than present the facts in a more objective light, thus enabling the student to see himself, his assets, his liabilities, and his opportunities more clearly than he could see them unaided.*

[19] Paterson, D. G., Schneidler, G. G., and Williamson, E. G. *Student Guidance Techniques.* New York: McGraw-Hill Book Company, Inc., 1938. P. 8.

Many inexperienced counselors utilize the interview for purposes of collecting information which can be collected better by other methods. As has been indicated in the section of this chapter concerned with records, student-recorded items and regular institutional forms should make duplicating questions in the interview unnecessary. Such duplication can be avoided by essential preparation for the interview by the counselor, during which he reviews the case history folder and has freshly in mind such items as academic progress and achievement, general health, socio-economic status of the family, past work experience, outstanding experiences, course of study, and numerous others.

Even though this book is devoted to counseling with individuals having educational-vocational problems, the counselor must be constantly alert for problems of other types. Group screening devices like the autobiography should be reviewed for signs of other kinds of problems. The interview itself should be so staged that the counselee has the opportunity to talk freely of difficulties other than educational-vocational ones. Sensitivity to other clues from behavior is a must to the competent counselor if he is to render full service to his counselees.

Purposes of the Interview

It is possible that, if all pertinent factual autobiographical data about an individual, plus results on a battery of diagnostic tests, were collected and collated, a competent counselor could, without ever seeing him at all, predict with some accuracy the probability of his success or failure in school and in a number of occupational fields at various levels. The fact that a skilled diagnostician could do so, however, demonstrates nothing more than high diagnostic skills in the solving of educational-vocational problems. It does not take into account the complete and most important service counseling must render. It would be rigidly directive and ignore the right of the counselee to make his own decisions. It leaves out the face-to-face talking things

over. It omits discussion of the reasoning by which the counselor reached his conclusions, which are often modified and changed as the counselee presents his point of view. To hand or to send by mail, to people with problems, pieces of paper on which their future courses of action are dictated by the counselor, smacks of guidance racketeering, of astrological charts and numerologies disseminated by correspondence. Effective counseling, like sound medicine, can only be carried on with interviews, sometimes many of them, an essential part of the process. Since this is an inviolable rule, which no counselor of integrity will break, it is necessary to outline the major purposes and techniques involved. Some of these are

1. To establish rapport between counselor and counselee. Rapport, for our purposes, means sustained interest and mutual understanding and respect between two human beings who are analyzing together, and seeking solutions for, a problem important to the one because it is *his* problem and to the other because it is his job to help. Expenditure of whatever time is necessary to establish this relationship in a preliminary interview or interviews is justified. On the part of the counselee it involves developing a feeling of ease, born of growing confidence in the counselor's competence, interest, knowledge, and skill, and a feeling of freedom to reveal both facts and emotions. On the part of the counselor it entails treating the student as a responsible adult, being considerate of all attitudes and feelings, resistant to shock whatever may be said. He must be patient in the face of repetition, indecision, or inconsistency and sensitive to the timing of his questions and comments. He must use sharp retorts and critical comments or warm and tender sympathetic ones only as tools, not as expressions of his own emotions, temper, judgments, or morals. He must remember that counseling is perhaps the most ideal kind of teaching, with the student on one end of a log and himself on the other in relaxed discussion. While

it is not necessary for him to win a student's liking, he must capture his respect and avoid dislike. And throughout the series of interviews this rapport must be maintained.[20]

2. *To collect new information and amplify or interpret information already gathered.* As has been indicated in the section of this chapter on *records,* much information is usually collected prior to the first interview. Such tools as questionnaires, personal history outlines, autobiographies, and academic records save the time in the interview, if the counselor has digested them. Despite much precollected information, the first interviews frequently require pointing up what is known to the counselor, adding new facets of emotion and attitude to these materials as the counselee interprets them, and, by listening and asking questions, garnering new items of information. This function of the interview continues even in a long series of talks with a counselee.

3. *To permit the counselee to "think aloud" in the presence of a sympathetic listener.* The therapeutic value of the Rogerian interview is frequently present, especially when problems are not serious or particularly pressing. All of us, including high school and college students, like to discuss our problems, dreams, and aspirations with others in whom we have confidence and with whom we have rapport. Just the process of talking things over brings new clarity of insight, relief from overtension, and a new objectivity. This effect is sometimes gained in a single counseling interview and sometimes only in a series of interviews in which the chief function of the counselor is sympathetic

[20] Readers will find the outline of the interview by Donald G. Paterson in "Finding the individual student and his problems," Chap. XXXII in F. J. Allen's *Principles and Problems in Vocational Guidance.* New York: McGraw-Hill Book Company, Inc., 1927, an interesting and useful presentation of how to use the interview. This material is reproduced in Paterson, Schneidler, and Williamson, *op. cit.,* pp. 8–12.

listening.[21] This point is important, as there is an unfortunate tendency on the part of many beginning counselors both to do most of the talking and to press for immediate solutions to problems long before the time is ripe for decision.

4. To convey necessary information to the counselee. Many vexing educational-vocational problems arise either because the counselee does not have the necessary information about jobs and job families or about his own abilities and interests or because he cannot apply what information he does have. Unlike some social-emotional problems, in which both cause and solution may lie almost entirely inside the person, with little need to change his outer environment, the causes and solutions of educational-vocational problems are often found to lie chiefly in the surrounding dynamic structure and process of school, college, and employment. Therefore, many individuals solve their educational-vocational problems by acquisition of new and accurate information about themselves and the world of work or by discovering a different orientation to information which they already possess. It is the counselor's task to furnish the lacking materials or to assist in reorientation.

An example of this approach is the concept of field and level in making educational-vocational choices[22] already briefly discussed in the previous chapters. Individuals who make choices in terms of specific job labels, as we have seen, increase the likelihood of a poor vocational choice. Thus, the youth who selects the occupation of *physician* rules out the more realistic choice of *a scientific field at the professional level.* Counselees who are brought to understand field and level concepts of occupational choice may quickly resolve their difficulties. Hence, the counselor often must "teach" these and other concepts in the interview situation,

[21] Rogers, Carl R. "Non-directive counseling as an effective technique," *Frontier Thinking in Guidance.* Chicago: Science Research Associates, 1945. Pp. 105–112.

[22] Hahn and Brayfield, *op. cit.*, p. 23.

keeping in mind that "to teach" is not synonymous with "to exhort," to "talk at," or "to dictate," but rather to interpret, clarify, and lead.

A balance must be maintained, of course, between instruction in the counseling interview and instruction in the classroom. Some counselors allocate far too much of their interview time to *individual* instruction with materials which properly belong to the classroom. Stone[23] demonstrates some of the lines which should be drawn in this regard. He shows that group instruction alone in educational-vocational matters, while it does increase the amount of information possessed by students, does not make their field or level choices significantly better. But when such group instruction in the classroom is supplemented by individual counseling, there is highly significant improvement. And he concludes that the courses "served as a preparation for counseling and tended to reduce the amount of time necessary for the resolution of vocational and educational problems."

5. *To find socially acceptable and personally satisfying alternatives with and for the counselee.* As the counselee strives to formulate alternative solutions and plans of action, the wider knowledge of the counselor can be extremely helpful in their joint objective study of each plan. Specific information about training opportunities, job opportunities, educational costs, job hazards, and the ways in which these are likely to affect the student are working tools of the counselor. Even when the counselee is finally led to think in terms of his appropriate field and level, the counselor can often both widen his horizons and help with specific detailed suggestions. Good counselors spend much of their time opening new doors to realistic opportunity and gently closing those that are likely to lead to dead ends or rough

[23] Stone, C. Harold. "Evaluation program in vocational orientation," in *Studies in Higher Education; Biennial Report of the Committee on Educational Research*, 1938–1940. Minneapolis: University of Minnesota Press, 1941. Pp. 131–145. See also *Educational and Psychological Measurement*, 1948, 2:161–182.

and hazardous detours. In this process of finding sound alternatives, counselor and counselee team together. The interview is the tool which best lends itself to this cooperative thinking.

In summary, despite its uncertain reliability and validity the interview is an absolutely necessary tool in counseling those with educational-vocational problems. Through it we focus all of the results of discoveries made by other tools and techniques upon the counselee's problem. We invite him into joint analysis and planning, which has as its end his free choice of aim and routes. Until a counselor has achieved more than a fair mastery of the interview, he still has a long way to go before he acquires counseling competence.

Standardized Measuring Instruments

None of the tools of the clinical counselor have received so much space in the literature of psychology as have standardized measuring instruments. This has not been because they are the most important tools in the counseling kit, but rather because they have been the subject of a vast amount of research. Thorndike's[24] statement regarding the feasibility of measuring anything which exists has been a provocative challenge to researchers into human behavior and prediction of its future trends. Because the literature is so rich in this field, the authors attend here only to certain general aspects of the use of tests and refer the reader to the literature for specific information. Because the development, interpretation, and use of tests has been experimental, they have bred hot controversy and, like all hot argument, have sired many fallacious theories, asinine statements, and sometimes serious, sometimes comic controversies. Many of these have been based upon the following fallacies:

[24] Thorndike, Edward L. "The nature, purposes, and general methods of measurements of educational products," *Seventeenth Yearbook of the National Society for the Study of Education,* Bloomington, Ill.: Public School Publishing Co., 1918. Part II, pp. 16–24.

1. The fallacy of belief. One of the most common statements regarding tests is that one "believes" or does not "believe" in them. Such a statement is silly. Tests are not articles of faith, of religion, or of a code of ethics to which one does, or does not, subscribe. The case for or against tests resides in scientific assessment, in how one evaluates the best research available in the field regarding a specific instrument, or instruments, in a stated frame of reference. So to evaluate one must be familiar with a given test and with the research done upon it and have both the training and the experience to evaluate such research. Obviously the average student, parent, subject-matter teacher, school administrator, professor of history, dean of men, or college president, unskilled in such matters, has little more right to a "belief" in this field than he has to "belief" in the methods of construction and testing of the atomic bomb.

The amateur "believer" in standardized tests usually takes the word of another "convert" or has found instances where the results of a test, or tests, have seemed to confirm his judgments. Oftentimes he backs his belief by personal experiences in test situations which have left him with a pleasant emotional tone. Frequently he is influenced by the fact that an authority in his field is favorably inclined. The well-trained, experienced sophisticate in the use of tests is not a believer but an analyst and cautious user.

The "nonbeliever" reverses the attitudes of the believer. He has been influenced by "nonconverts," even though these people may not themselves have any real knowledge of the instruments concerned. He may have had unpleasant personal experiences with test situations. When he has tried to use test scores the results may not have been in keeping with his own emotionalized preformed conclusions. The nonbeliever has had no more training and experience than the believer.

It is difficult to estimate which of the two does the greatest damage in the use of standardized psychological tests. The believer may be overly directive in his counseling on the

basis of poorly interpreted test scores and thus cause counselees to make decisions which are worthless or actually harmful. The nonbeliever ignores data about individuals which are essential to solution of their problems.

2. *The fallacy of simplicity.* The question of who should make use of test scores has never been satisfactorily answered. There is no sharp boundary line which divides the anointed from the unanointed. This must be so because every adviser and counselor is at different levels of competence in knowledge of any test and in power to interpret the meaning of scores achieved by counselees in relationship to other numerous and complex data. A classroom teacher may, for example, have some familiarity with a certain test of academic ability and may keep abreast of research upon it, and his interpretation of a student's score, relative to a known situation and with other variables limited, may be entirely defensible. Hahn[25] indicates the levels of competence in the use of tests when he says:

> In the area of educational problems the average teacher works for the most part with unvalidated student statements or with equally invalid personal impressions. Many teachers interpret their grades and ratings to youth seeking counsel. A few teachers have become skilled to an extent that they can interpret various kinds of data in terms of simple statistical concepts. A very few are competent to interpret complex, related data, dependent for their meaning upon greater statistical sophistication. A rare individual can utilize man and job analysis in such a way that proper interpretation is supplied to the counselee.

To the writers, the assumption that use of test results is a simple skill is a dangerous one. Misinterpretation can throw a student into a wholly unwarranted feeling of anxiety or inferiority or bring down on his head the unjustified wrath of his parents. On the contrary, at the other extreme, it can inflate his ego out of all bounds and give him a false

[25] Hahn, Milton E. "Levels of competence in counseling," *Educational and Psychological Measurement,* 1942, 2:243–256.

and damaging sense of pride and superiority. The fallacy of simplicity arises in part from the fact that many teachers, at all educational levels, have not been adequately trained to understand and use the results even of tests of knowledge in specific subject-matter areas and much less of complex measures of intelligence, abilities, aptitudes, interests, and other tools for diagnosing personality factors. McCall[26] makes clear, however, that teachers should be trained in the use of standardized tests and that the specialists in measurement should not be allowed to hold any monopoly on them.

Q. Should teachers be allowed to administer and score intelligence and educational tests and interpret the results?

A. Many years ago certain specialists sought to secure a monopoly of the privilege of using standardized tests by trying to persuade educators to regard the tests as possessing certain mystic properties. A few of us with Promethean tendencies set about taking these sacred cows away from the gods and giving them to mortals. Can teachers be trusted with tests? If not, then teachers ought not to be trusted with 90 percent of their present functions. We now entrust them with the far more difficult task of teaching reading, creating concepts and building ideals. Let us not strain at a gnat when we have swallowed fifty elephants.

McCall does not imply, however, that by virtue of being a teacher one automatically becomes a competent interpreter of test results of any kind. On the contrary, the road to competence in this field is long and difficult. One leg of the route demands thorough grounding in basic statistics. It is not by accident that Darley[27] titles a chapter of his book, "Statistics and the Understanding of Tests," and then uses as his opening statement the following: "Statistical methods can be valuable summarizing or 'shorthand' devices.

[26] McCall, W. A. "Two significant questions and two pertinent replies," in Paterson, Schneidler, and Williamson, *op. cit.*, pp. xvii–xviii.

[27] Darley, John G. *Testing and Counseling in the High-school Guidance Program.* Chicago: Science Research Associates, 1943. P. 45.

A knowledge of statistics is essential if the high-school counselor and guidance worker is to interpret test results correctly."

It may be added that the level of skill in interpretation, therefore, depends in part upon the interpreter's statistical sophistication. Persons with little understanding of statistics should be humble, cautious, and tentative in all their use of tests and scores and in what they say about them to students, parents, and colleagues. From this view no test is simple.

Certain types of standardized tests and inventories, such as those designed to appraise personality and interest factors, while somewhat less dependent on statistical concepts, can, in fact, be used and interpreted only by counselors with long clinical training and experience. They demand wide range and profound depth of insight into human behavior and into the open and hidden multiform forces that produce it—forces that lie within the personality of the counselee and in the physical, chemical, biological, and cultural world that surrounds him; forces that interact dynamically and with differing pressure at different times. Examples of these instruments are the Rorschach[28] and Thematic Apperception Tests.[29] Although the Strong Vocational Interest Blank is normed and validated statistically, full interpretation of its results depends greatly on clinical experience.[30] To extend McCall's statement on page 121 to instruments such as these would be highly hazardous practice. The authors have seen counselees suffering acute trauma from having some rank

[28] Beck, S. J. *Introduction to the Rorschach Method, A Manual of Personality Study.* American Orthopsychiatric Association, 1937. *Research Monograph* No. 1.

[29] Murray, H. A. *Manual for the Thematic Apperception Test.* Cambridge, Mass.: Harvard University Press, 1943.

[30] Carter, Harold D. *Vocational Interests and Job Orientation.* Stanford University, Calif.: Stanford University Press, 1944. *Applied Psychology Monographs* No. 2.

Strong, Edward K., Jr. *Vocational Interests of Men and Women.* Stanford University, Calif.: Stanford University Press, 1943.

amateur arrogantly brand them as "introvert" or "neurotic" or as "unfit for college" on the basis of misinterpretation of a single test score. Such practice, unfortunately, is not uncommon. The fallacy of simplicity is one of the most dangerous ones!

3. *The fallacy of test labels.* Naïve test users are prone to commit a semantic error and to take the name of standardized tests at face value. If a test is labeled Mechanical Aptitude, the user leaps to the assumption that all the complex factors of mechanical aptitude are being measured. Inspection by a qualified person may disclose the test used is only a trade test, appraising knowledge of tools and materials in a single occupation such as carpentry, and does not tap at all such aspects of "mechanical aptitude" as a sense of space relations in minute or huge areas, or eye-brain-and-small-muscle coordination, or sense of timing. Many "counselors," however, do not detect the real limitations of the test, but instead take its label as all-inclusive. Moreover, some instruments with patent labels may appraise common factors in quite different job fields. Thus tests of "clerical aptitude" may also be tests of machine-shop performance, "mechanical ability" tests may be efficient in identifying clerical aptitudes. In the field of academic subject-matter testing, many counselors fail to recognize that "diagnostic," "prognostic," and "achievement" are terms describing test use and not necessarily different types of tests. For example, an achievement test in algebra may yield scores which permit comparison with known groups in terms of subject-matter mastery. The same test score may be used to diagnose ability in algebra and to predict success in advanced college mathematics.

4. *The fallacy of named scales or keys.* In a recent conference attended by one of the writers, a counselor expressed strong bias in favor of a certain interest inventory on the grounds, he said, that, "It is the only one suited for the high school level which has a key for agriculture!" When he was questioned regarding the reliability and validity of this

key, he answered, "No reputable publisher would publish materials which did not possess proper reliability and validity." His statement was, of course, nonsense. While experimental tests are often mimeographed at first and tried out locally by their makers, they are published as soon as possible (and by "reputable publishers") in order to give them the widest possible dissemination and tryout. By this means the maker and his research staff are able to gather results from different parts of the country, from varied institutions, at different levels, and in quantities statistically significant. By means of factor analysis of these accumulated data they develop subscores into scales which they assume may identify such a focus as an interest in "agriculture" separate and different from one in "salesmanship" or "nursing." For convenience they will label such scales. But establishing their reliability and validity is a process that may extend over many years. For example, one such test was launched in 1923. The process of validating and proving reliability has been carried on ever since and is still being pushed forward, with new tentative subscales being added from time to time. Sometimes it is found necessary to break a subscale into sub-subscales. For example, it has been found that while there may be such a thing as general salesmanship, practical counseling demands that this generality must be subdivided because selling insurance, or houses, or cyclotrons, each demand quite different abilities and interests. It is essential, therefore, that a counselor know clearly the full semantic meaning of test and subscale labels and not permit himself to accept the fallacy of identifying the name with the thing.

5. *The fallacy of prestige.* One of the better criteria of test excellence is the person, or persons, responsible for the development of the instrument in question. Such names as Terman, Thurstone, or Strong carry a justified connotation of excellence in the field of measurement. Even the best craftsmanship and highest integrity on the part of such specialists, however, cannot protect against misuse, misinterpretation, or misrepresentation by unskilled teachers, ad-

visers, counselors, and laymen. The unqualified and superficial acceptance of tests because the author is beyond professional reproach is a stupid and dangerous practice. Traxler[31] gives the key to a proper attitude for all counselors toward evaluation of the tests when he says of the Chicago Tests of Primary Abilities: "A new and promising contribution to mental measurement, based on several years of intensive work in factor analysis."

Sound evaluation of these instruments demands that the counselor understand not only the statistics involved but the assumptions about mental organization and operation which underlie them. This in turn may require reading in sources not usually sought by the majority of busy counselors.* Some backgrounds would appear essential regarding the two-factor theory (Spearman), the group factor theory (Thurstone), and the sampling theory (Thomson). In addition, the decision to use promising new instruments, however great the competence of the author, must be based in a large part not only on statistical analysis but on the clinical use of the instrument by many counselors over a period of time. This experimental period of tryout of the new tool

[31] Thurstone, L. L., and Thurstone, Thelma Gwinn. *Chicago Tests of Primary Abilities.* Chicago: Science Research Associates, 1941. Information is also available through the American Council on Education, Washington, D. C.

Traxler, Arthur E. *Techniques of Guidance.* New York: Harper & Brothers, 1945. P. 54.

* The reader who wishes to evaluate an instrument without consulting specialists on the subject would be forced to resort to such sources as: Crawford, A. B., and Burnham, P. S. *Forecasting College Achievement.* New Haven: Yale University Press, 1946. Chap. VI, "Unitary traits and primary abilities," pp. 170–215; Spearman, C. "The theory of two factors," *Psychological Review,* 1914, 21:101–115; *Abilities of Man.* New York: The Macmillan Company, 1927; "The factor theory and its troubles," *Journal of Educational Psychology,* 1934, 25:383–391. The counselor might encounter difficulties with G. H. Thomson, "On complete families of correlation coefficients and their tendency to zero tetrad-differences," *British Journal of Psychology,* 1935, 26:63–92. L. L. Thurstone's *The Vectors of Mind* (Chicago: University of Chicago Press, 1935) is not light reading.

should include the continued use of other instruments, previously found helpful, with which the new one may be compared. Thus, one should not abandon Strong suddenly to adopt Kuder, or the Ohio Psychological to pick up the Miller Analogies. In summary, a counselor must not accept and adopt a test solely on the basis of the prestige of its maker but must, if he is to use and interpret it accurately and effectively, follow closely the research literature concerning it.

6. *The fallacy of generalization.* The fallacy of generalization operates in two directions: first, the tendency for counselors to assume that, because they are competent to use certain kinds of tools with first-rate technique, they are also able to employ others with equal skill; and second, the tendency to assume that an instrument valid and reliable under one set of circumstances will be equally reliable and valid in a quite different one.

To illustrate, counselors trained in placement activities, dissemination of occupational information, the keeping of cumulative record systems, and generalized occupational interviewing are often successful clinical workers as long as they keep within the limits of their training and experience. But when, for instance, they move over the borders of these activities, without adequate preparation, into the employment of the delicate and difficult instruments of emotional psychotherapy, or try to do counseling on family relationships, they usually do far more harm than good. Training does not transfer unless, as Seagoe[32] points out, the following conditions are fulfilled:

1. Learning transfers only, however, to closely similar situations, those where the same elements or the same generalizations apply. Transfer between different situations does not occur. . . .

[32] Seagoe, M. V. "The learning process." An address delivered at the Conference on Supervision, University of California, Los Angeles, July 14–25, 1941. See *California Journal of Elementary Education,* 1942, 10:152–165.

2. Transfer is greater when the teaching is consciously directed toward transfer. . . .
3. When two similar learnings must each remain an individual entity, presenting them together or comparing them is highly confusing. Rather one learning should become relatively mature before the second is undertaken.

Special preparation, formal or informal, is called for as new tools are needed and more complex techniques required. Because administrative policy may make the introduction of unfamiliar tests mandatory before counselors are prepared to give and interpret them, they are sometimes forced to do a hasty job of reading up until time allows adequate mastery. Unfortunately, some counselors do not try to prepare themselves in even cursory fashion but instead fall into the fallacy of generalizing from their past limited competence and ability to handle old tasks that they can manage new ones, even when there is no administrative pressure as a partial defense.

The second type of error arising from this fallacy is common. Tests used in one situation can hardly be expected to yield comparable results in other situations only superficially comparable. Prediction of future scholastic success from results of a standard test of academic ability in one school may be full of errors, whereas prediction in another school where the subjects are homogeneous may be quite valid. Test scores gathered under quite closely controlled conditions in counseling programs staffed with specialists in their use often yield results vastly different from those in programs loosely administered and staffed by beginning counselors. It is never a safe practice to accept the results of isolated experiments and generalize from them. The same test may be an excellent instrument in New England and a faulty one in Mississippi. It may be useful with adolescents in high school and of no value at the university graduate level. In rare cases it may be predictive for men but not for women. Hence, it is obvious that users of tests must

carry on constant research and study to determine how each instrument will perform in their local situations. This principle applies equally to the use of other tools such as the anecdote, interview, and cumulative record.

7. *The fallacy of reliability and validity.* There is a tendency, particularly prevalent among nonbelievers in tests, to assume that reliability and validity are terms which apply only to tests and their use. This fallacy is fostered by the fact that tests are the only tools upon which extensive research has been done to determine statistical validity and reliability. This condition results in part because test scores lend themselves particularly well to statistical treatment. Actually, it is just as important that we know how reliable and valid are the interview, anecdote, autobiography, cumulative record, health record, and occupational information. Analysis even of school grades indicates that there is extreme variation in their reliability and validity from school to school, from teacher to teacher, and from one time to another in the grades of a single teacher. Research regarding these tools and the methods of using them is still embryonic, since it is much more difficult to accomplish than with test scores. For this reason we know less about their reliability and validity. In consequence, users of these more complex tools are under even more compulsion to follow such critical research as has been done, and may develop, upon them, as well as to study and continually check the results of their own use of them. So incautious and unwise are many counselors that they leap to attack tools which have been validated by research but often are unable to offer any sound evidence of the reliability or validity of the tools they themselves use routinely. Blind faith and obsolete tradition are rotten substitutes for constant reading and unceasing experimentation in the use of any counseling tools and techniques.

A good rule of thumb for any counselor who plans to use any test in his program is this: he should delay using it until, at a minimum, he has completed a study of the test manual;

taken the test himself; read the basic literature about the instrument; and consulted a competent professional worker who has tried it out experimentally in a quite comparable situation over a period of time. This process can be somewhat speeded up if the counselor has already had extensive training and some experience in the use of a variety of tests. The education and psychology departments of most colleges and universities usually have one or more staff-member specialists in measurement who are acquainted with a variety of one or more types of tests and who will be glad to open up such facets of their use and interpretation as they know. Counselors will do well to consult frequently with such specialists about current progress in general and special tools of measurement. When possible it is advisable for the counselor-in-training to serve an internship in a program which makes full and effective use of test results as data for counseling. Such an internship will often help him to avoid the fallacies reviewed and other pitfalls which result in negative or harmful use of test scores. Formal graduate courses in individual and group assessment and interpretation of test functions, use, and results are also helpful. Finally, the counselor will do well to add always to his library the basic texts and manuals and journal literature concerning instruments which he uses or is planning to introduce. The reader is referred for a starter to the bibliography which follows.

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TRAXLER, ARTHUR E. *Techniques of Guidance.* New York: Harper & Brothers, 1945. Chaps. VIII–X.

WILLIAMSON, E. G., AND DARLEY, J. G. *Student Personnel Work.* New York: McGraw-Hill Book Company, Inc., 1937. Pp. 229–244, 271–281.

In addition to the references above and materials contained in current professional journals, counselors who use tests should maintain a file of tests and test manuals. It is also recommended that they build a reprint library of pertinent articles by obtaining reprints from authors.

Chapter 5. THE TOOLS AND TECHNIQUES OF COUNSELING (*Continued*)

In the preceding chapter we have considered the four tools of counseling most consistently used to resolve educational-vocational problems. The emphases placed upon records, autobiographical and personal documents, the interview, and standardized tests will vary from counselor to counselor, from case to case with the same counselor, and in the same case at different stages. The tools we consider in this chapter are no less important, under many specific circumstances, than those discussed. Less space is accorded them, however, because they are so frequently ancillary. We turn then to the *anecdote, the systematic case study, sociometric devices, projective devices, semantics, rating scales, occupational information,* and *statistics* in the order named.

The Anecdote

The *anecdotal record* received much attention during the 1930 to 1940 decade. This was understandable in a period when well-trained, experienced counselors were the exception rather than the rule in the majority of colleges and secondary schools. Moreover, the method might well be named an "administrator's delight" because it is low in cost; it can be used with superficially obvious effectiveness by classroom instructors with little or no formal training in applied psychology; it appeals to an almost universal sense of the dramatic; and its interpretation can be colorful, imagina-

tive, and fictional rather than coolly objective. As we read the professional literature, an uneasy suspicion arises that the very real values of the method when employed by skilled observers and analysts, working on systematic observations, were often obscured or wiped out entirely by delight in gossip about youngsters' behavior. It was also a device adapted to administrative convenience and small budgets. Counselors concerned with the reliability and validity of this technique react sometimes with amusement, often with alarm, to the stories of what some principal or teacher saw a boy do in the halls, or what a French professor thought of how a college senior girl acted at a football game. Much of the literature on the anecdotal method is excellent fiction but often reveals much more about the observer than about the student.

Despite the fact that many personnel workers have fumbled with it and abused it, the anecdote is a useful tool if its limitations are recognized. Its first limitation lies in the one who sees and reports the incident, as anyone knows who has had an elementary course in psychology where hundreds of lectures and demonstrations have been given of the fallibility of witnesses to even the simplest event. The fact is that most of us cannot see straight. In reporting what we think we have seen, we confuse fact and feeling, project old memories and prejudices into the new picture, and report this mixture in words colored by our personal semantics. When, therefore, many teachers collect and report observations about students, and pour them in like a paper snowstorm on the counselor, the chances of error are multiplied a thousandfold. Traxler[1] indicates, in his excellent treatment of this tool, both its faults and its virtues. He analyzes the means whereby the bad may be culled from the good and develops a method whereby collection of anecdotes may be made efficient; their filing for available use can be done with a minimum wastage of clerical and counselor time; and

[1] Traxler, Arthur E. *Techniques of Guidance.* New York: Harper & Brothers, 1945. Pp. 131–148.

their evaluation, interpretation, and use as a diagnostic instrument made effective.

While the authors have found the anecdote particularly helpful when it is directed toward obtaining observations of the behavior of counselees with social-emotional-personal problems, it has its uses in educational-vocational counseling. Anecdotes concerning sleepy or overreactive behavior in the classroom; apple polishing or earnest seeking after information in the professor's office; playing bridge or reading detective stories instead of getting down to work on assignments at home or in the fraternity house or, contrariwise, poring over the books for endless night hours—all illuminate the sources of scholastic difficulties. Incidents occurring on the part-time job or in working at student activities, and reported factually by boss, committee chairman, or fellow workers, may reveal the habitual clock watcher or too early bird, the office gossip or the man who minds his own business, and thus be significant for counselor diagnosis, discussion, and prediction. Such anecdotes, never interpreted as single and isolated criteria but employed to supplement data gathered by other means, will often throw clear light into the darker and dustier corners of a baffling problem or reinforce preliminary judgments on a less difficult one. Hence, familiarity with the anecdotal method is essential in all aspects of counseling. For detailed material on this instrument the reader is referred to the sources listed.

The Systematic Case Study

The case study is an old method which has been rediscovered and adapted to the complex business of modern counseling. Strictly speaking, it is not a tool or technique in quite the same sense as are statistics, anecdotal records, or psychological tests. Its major function is to bring together the information collected by the other tools and their techniques in such a manner that these data can be systematically reviewed and analyzed and clinical weightings assigned

them. Basically it is an individualized, discriminating, systematically planned method of record keeping and interpretation.

Much concerning the case study has been well said by others and need only be summarized here. Strang[2] gives us a readable, straightforward presentation of this tool, together with a relatively comprehensive bibliography about it. Traxler[3] has supplied a useful discussion of the case study for students in educational institutions, which, like Strang's material, is well documented. Williamson and Darley[4] and Williamson[5] present aspects of the case study particularly suited to the counselor with educational-vocational problems at the college level.

Gordon Allport[6] describes the rational of the case study particularly well.

> This method . . . is the most comprehensive of all, and lies closest to the initial starting point of common sense. It provides a framework within which the psychologist can place all of his observations gathered by other methods; it is his final affirmation of the individuality and uniqueness of every personality. It is a completely synthetic method, the only one that is spacious enough to embrace all assembled facts. Unskillfully used, it becomes a meaningless chronology, or a confusion of fact and fiction, of guesswork and misinterpretation. Properly used, it is the most revealing method of all.

Assembled in the case history folder the counselor should find all data which past experience has shown to be useful in a numerically important number of cases. Inter-

[2] Strang, Ruth. *Counseling Technics in College and Secondary School.* New York: Harper & Brothers, 1937. Pp. 32–51, 137–139.

[3] Traxler, *op. cit.*, pp. 284–307.

[4] Williamson, E. G., and Darley, J. G. *Student Personnel Work.* New York: McGraw-Hill Book Company, Inc., 1937. Pp. 168–183.

[5] Williamson, E. G. *How to Counsel Students.* New York: McGraw-Hill Book Company, Inc., 1939. Pp. 65–68.

[6] Allport, Gordon W. *Personality: A Psychological Interpretation.* New York: Henry Holt and Company, Inc., 1937. P. 390.

view notes, autobiographies, anecdotes, cumulative school records, counselor's notes, the results of tests, confidential reports from various sources, and the data for the application of statistics, all are present. The folder holds a mass of miscellaneous material of value, regardless of the kind of problem with which the counselee is troubled. Since we are primarily concerned with educational-vocational problems we focus on data which will help us in this field, leaving those that bear upon social-emotional problems in the normal range to others.

The case study should not be confused with counseling itself. Its preparation, organization, and analysis are primarily the counselor's task. It is usually employed in the interview and applied to an immediate problem only after the case study has reached or is nearing completion. Chap. 10 is devoted to use of the case study in counseling; Chap. 9 deals with a case study.

Systematizing the Case Study

Because this mass of miscellaneous material in the folder is so great and because the clinical counselor must deal with many variables and assign them clinical weights in each case, it is essential that he systematize them into a case study. Only by patient and careful organization can he avoid overlooking important areas and be sure that all pertinent items are fitted into the mosaic which he builds, and that each is in its place and is given proper emphasis. Nearly all writers who deal with this instrument present methods of systematization. From these we select two examples: one from Traxler[7] which gives a clue to organization on the basis of categories of materials to be included; the other from Williamson and Darley,[8] who systematize the steps in the dynamic process of applying these to clinical counseling.

[7] Traxler, *op. cit.*, p. 293.

[8] Williamson and Darley, *op. cit.*, pp. 168–183.

Traxler provides a quite complete summary of the information which "could readily be applied to case studies by a classroom teacher" in the secondary school. While the writers do not agree that many classroom teachers are sufficiently trained as clinical psychologists to deal with all of the items, the counselor with adequate study and experience will find his summary guide to systematizing the case study useful. It is as follows:

Introductory statement—identification, age, school grade, etc.
Intelligence
Scores on achievement tests
School progress
Summary of teachers' statements
Learning defects
Social history
Health history
Personality problems
Observation of pupil
Summary
Tentative diagnosis

Traxler is particularly concerned here with the educational counseling of pupils in the school. Thus, some of the items would not be so pertinent to adults, to youth who have left school, or to vocational counseling, since job interests and other field-level matters are omitted. Further, he may cover in his "social history" and "personality problems" more information about social-emotional factors than is necessary to resolve educational-vocational problems. Even so, case history folders, rich in detail on all elements of Traxler's list, are highly desirable wherever practicable.

Williamson and Darley, under the heading, "Clinical Procedures," provide six steps. These are *clinical analysis, clinical synthesis, clinical diagnosis, prognosis, treatment,* and *follow-up work.* For cases in which counseling has been a long-continued process, all of these steps are essential to the full, effective use of a case study. A new case,

because no treatment or follow-up has been possible, does not include these steps.

These authors describe *clinical analysis* in terms of identification of data from the case history folder which are most pertinent to the counselee's present difficulties. This preliminary step derives its materials from the results of all counseling tools and techniques which have provided information about the counselee. It can be described as a "winnowing" process. *Clinical synthesis* is described as "the orderly assembling of an extensive series of facts derived from a study of the individual case by every interested personnel agency." This step requires sound understanding of counseling theory, a mastery of a number of counseling tools and the more widely used techniques with each, and more than a little supervised experience in "teasing out" meaning from a large number of data, many of which may seem deceptively irrelevant, and in assigning weightings to all factors. This orderly array of evidence is the basis for *diagnosis.*

Diagnosis is the step which is aimed at answering the question, "What's wrong?" A good diagnostician of educational-vocational problems insistently questions the reliability and validity not only of data included in the synthesis, but also of his clinical judgments. This persistent, objective questioning of his own clinical decisions, submitting them to individual and staff conference assessment, appears to be one of the most important and most frequently neglected steps in the process. Every counseling situation demands continuous appraisal of the validity and reliability of its personnel.

Prognosis is a projection of diagnosis and treatment. It asks the question, "In view of all factors, what outcome can we normally expect if the counselee follows any one of the several alternative courses he and the counselor have outlined together?" If the specific alternative arrived at by the counselor who has made the case study is acceptable to the counselee, and he has made a final decision, what are the

probabilities of his success? Answers to these questions constitute his prognoses. When set down and then checked against what actually happens to the counselee, it becomes the best method to validate the counselor's clinical judgments and his operational knowledge, insight, and skill in the whole process. If we do not record our prognoses we usually display a strong tendency to forget our failures and remember our successes, dress up and show off our prize products, and cover up our mistakes! *Prognosis* never implies that alternatives deemed reasonable by the counselor should be forced upon the counselee, except in rare cases of emergency, when a decision must be made at once for a wholly indecisive counselee. In cases where decision can be delayed or where failure to make one is not likely to be harmful, the counselor makes prognoses of the probable results of delay and indecision. He also predicts the probably negative outcomes of a counselee's choice of a pattern of action that goes contrary to the counselor's best judgment based on the case history. To be proved wrong occasionally is a healthy corrective to overconfidence and a stimulus to thought-provoking analysis of how to improve prediction.

Follow-up is the final step in counseling. It is the balancing of the books to demonstrate the reliability and validity of tools and techniques and of the counselor's clinical work with them. The follow-up may consist, at one extreme, of unplanned and casual contacts with an "old grad" who is an ex-counselee, and be no more than an informal chat on how he is getting along. The authors have had many such conversations, usually pleasant. Some former counselees telephone and report occasionally. Others write letters as the whim strikes them or at regular intervals. This process, while rewarding in warm human terms and mildly profitable as evidence of effective counseling, is not professionally significant. At the other extreme lies organized, planned follow-up in which, by means of questionnaires and confirming interviews, an attempt is made to get

and to keep in touch with every former counselee, if the number is small, or with a carefully selected sample representing a wide range of types of cases if the number is large. The returns on these are checked against the case history, especially the diagnosis and prognosis. The counselor then analyzes the results to eliminate accidental or unforeseeable environmental happenings that have forced the counselee off his course, to determine what misuse of tools skewed his own earlier estimates, and to plan how he may improve his work with oncoming counselees. The process of prediction will be considered more in detail in Chap. 11.

Williamson and Darley have emphasized the point that these steps do not always follow in the order given above and that, under some conditions, some of the steps may be omitted. The chief reason for systematizing the use of the case history is to aid the counselor in following through on his cases, leaving the smallest number of loose ends. We can now turn to general considerations important to making case studies centered upon educational-vocational problems.

Some General Considerations for Use of the Case Study with Educational-Vocational Problems

1. Counselor training and experience should govern the kinds of case studies attempted. In terms of problem complexity and depth of therapy required, human problems tend to follow the educational, vocational, social, emotional order from least to most complex with overlaps and blendings of each in every case. Because counseling is one profession where theory and practice must go together, and often because it is a young profession, with practice preceding theory, the neophyte should limit himself to tackling problems of relatively minor complexity and depth. A case study to aid a counselee in choosing college X or college Y is fairly safe for the beginner, although even this is not so

simple as it seems, since colleges differ enormously from each other at a given time, and one institution today differs from what it was yesterday. If the counselee wishes aid in deciding on one or another direction for pursuing a vocational outlet in a mechanical field at the skilled level, we have a roughly comparable simple situation. The counselee who wishes to obtain social approval and to participate in social events, but who does not know the simple rules of effective social behavior, presents still another kind of problem with which the beginner may learn to deal.

2. *Group discussion and supervised practice should accompany early attempts at case studies.* The staff clinic has been found to be one of the best methods by which a beginner can learn to practice the science of making, skill in using, and the art of interpreting, case studies. Through the elaborate but clear, hard-hitting presentation of "live" cases by a trained clinician, he begins to move out of the abstract and theoretical into the applied and concrete. He acquires a sense of organismic analysis of individual differences by means of counseling tools in the hands of a skilled practitioner. If, then, he enters upon his internship, he learns rapidly by observation and, finally, is given a few counselees of his own. Supervision by able and experienced clinical workers will help him to deepen and broaden his insight and to learn caution in order to avoid errors which are sometimes tragic and, at the same time, permit him steadily to widen his field of practice under constant constructive criticism. In the staff clinic, the give and take of various clinical specialists demonstrates the many angles of approach to a problem and the necessity of viewing it from all of them if diagnosis and prognosis are to be sound. Review of case studies by experienced counselors illuminates the use of tools, the limitations of techniques, and the frequency of controversy over interpretation. When combined with supervised practice upon first cases, there usually results rapid learning, especially of the important habits of objective humility and flexibility.

3. *Case studies should be restricted to data from tools and techniques in the use of which the counselor can demonstrate skill.* Clinical counselors must master their tools and techniques through understanding of the theories which underlie them, practicing their use and maintaining current knowledge of research which appears in the professional journals. This mastery of tools usually results from an endless learning spiral—simple initial understanding of a few tools and techniques; constantly increasing insight and improved skill in their use; the addition of new ones and practice with them. To maintain this upward spiral both experience and persistent study are demanded. Just as it is not safe to apply theory without experience, so it is also dangerous to apply practice without theory, as happens whenever counselors, by administrative fiat, assume the competencies assigned in the literature to the highly trained and experienced professional counselor. If, for example, the beginning counselor has not mastered the necessary statistics, his judgment in the use of tests, rating scales, and records is suspect. If he is inept at interviewing, has no training in the evaluation of anecdotes, has not learned to systematize his case histories, is ignorant of the principles of semantics, knows little of organized follow-up, he can easily damage more counselees than he helps.

4. *Case studies should follow the law of parsimony.* The simplest conclusions which afford an adequate explanation of the counselee's difficulties are the best ones. In the training of counselors, it is considered sound practice to require, at first, that the trainee plod through each step, writing out all his materials, dotting every i and crossing every t. Hence, many beginners feel that a case study is a special event which requires a voluminous written summary explaining in detail not only "what," but also "how" and "why." While this is excellent training for the neophyte, it is impossible in counseling practice. The absorption of counselor time and the clerical chores and costs which accompany the building of such elaborate case studies

in educational institutions rule them out in all but a few exceptionally difficult cases. In consequence, the vast majority of case studies are done in the busy clinical counselor's head. He reviews the data, makes his clinical judgments, arrives at his conclusions, and interprets these conclusions in the counseling interview. His written record is often only a brief summary, which states the final conclusions and mentions briefly, if at all, the steps by which they were reached. But, to be able to do so well, he must, in dealing with his first fifty cases or so, labor through the whole step-by-step process and record all elements in detail. By thus fixing routines, he establishes work habits which save uncounted hours with later cases. As more cases are built up patiently and laboriously, sooner or later Williamson's "click" will occur. Clinical patterns of meaningful data will fall into place seemingly without effort. The first few times this occurs the counselor may be startled and will go back through his procedures painfully searching for errors. He feels that "It just can't be that fast!" By plodding he has reached the point where he can run. He no longer needs a record of how the conclusions were reached because from the conclusions alone, he can, at any time later, easily reconstruct his reasoning.

5. *Case studies should not consume too much time.* Beginning counselors sometimes, instead of hewing to the line and making simple case studies and striving for a reasonably direct diagnosis, will look for mysterious and deeply hidden causes. Having browsed in Freud, they will probe for an Oedipus complex in a student who merely wants to change his course of study. While it is certain that, in a proportion of cases, there will be baffling complexities, counselors must learn not to suspect their presence in all students and to refer counselees to a psychotherapist when occasional deep anxiety or conflict appears obvious. It is important to learn to judge the difference between superficiality and overinterpretation. A young man does not need a psychiatrist to determine whether he should transfer from a course in Fielding to one in Browning. Nor can a

young woman, in violent and bitter conflict with her family, who want her to marry the man next door while she wants to train for nursing, be helped by a cheery assurance that the matter is not serious and will "all come out in the wash."

The counselor who specializes in educational-vocational problems will find a large number of relatively simple problems, which should not be time-consuming. Being trained to hammer out every item in the record, beginning counselors feel that to work rapidly in diagnosis is to display superficiality. They will, perhaps, claim merit because only one or two case studies are summarized in a day. While this is a defensible use of time for psychotherapists concerned with deep therapy, which in complex cases will take weeks or months, a full-time counselor specializing in educational-vocational problems will find that a fair average of case analyses and summarizations will be from five to ten a day, especially if he confines himself to these problems and makes proper referrals when he uncovers social-emotional, health, and other difficulties.

A quotation from Williamson[9] appropriately closes this brief discussion of the case study:

> Actually, the most important technique of the counselor lies not in his use of analytical tools, but in his own psychology, in his skill in perceiving diagnostic significance in data which may be considered by others as having no significance. Indeed it is this insight, supplemented by skillful use of special analytical tools, which differentiates an effective clinician from an amateur counselor. The tools of personnel work have often been stressed out of proportion to their true significance, with the result that the necessity for skillful use of tools has been neglected or taken for granted in the description of personnel work and in the training of new counselors.

Sociometric Devices

While the older tools, reviewed in this and the previous chapter, are being continually studied, and the techniques

[9] Williamson, *op. cit.*, pp. 67–68.

of their use improved, new methods of analyzing and treating the adjustment problems of people are continually being tried. Few of the "new" techniques are really new in the sense of their never having been thought of or tried out previously. Rather, they are adaptations of older instruments, sometimes pulled in from fields other than counseling. This is true of a number of sociometric devices. *Socionomy* is the science which is concerned with the psychological properties of populations and with the group and communal problems which these properties produce. Moreno[10] defines *sociometry* as "that part of Socionomy which deals with the mathematical study of psychological properties of populations, the experimental technique of, and the results obtained by, application of quantitative methods."

General clinical counselors are just beginning to make great use of sociometry as a tool for helping the individual to understand his difficulties. They have discovered that frequently anecdotes and ratings found in the cumulative record supply information quite like that yielded by sociometric devices. Autobiographical, interview, and test revelations of the interaction of counselee and group forces; of the quality and quantity of leadership potentialities in a student or his acceptance by others without his showing leadership; or evidences of his rejection by a group or groups or isolation without active rejection are all akin to results obtained by direct use of formal sociometric devices.

An example of one sociometric device is the variety of so-called "guess who" techniques which identify individuals in a group being studied as acceptable to or rejected by other members. Sometimes these are direct observations by a trained watcher who analyzes patterns of social attraction, ignoring, and repulsion of individuals in group activities. To systematize his work, the direct observer may record his observations on the sociogram, a carefully wrought check list of commonly found behavioral evidences

[10] Moreno, Jacob L. *Who Shall Survive?* Washington, D.C.: Nervous and Mental Disease Publishing Co., 1934. P. 10.

of these processes. Simple, indirect methods have also been devised. One of these is to formulate descriptions of various kinds of acceptable and unacceptable patterns of behavior and then have each member of a group guess who, among the others, best fits each pattern. These data can be graphically presented to illustrate social-individual interactions. Because the general clinical counselor is increasingly employing these devices, he develops an increasing understanding of sociometric tools. The reader is urged to begin to attain a fair measure of familiarity through the items in the bibliography at the end of this chapter.

The reliability and validity of sociometric devices differ somewhat from the usual statistical concept of these terms. Because the behavior sample in question, when any group is studied, is directly meaningful without an outside criterion or definite point of reference, the usual test concept of validity does not apply.[11]

Newstetter, Feldstein, and Newcomb[12] reported an average reliability of .95 based on data collected over a period of four weeks with a five-choice allowance on a single criterion. Zeleny[13] reported reliability coefficients ranging from .93 to .95 on the readministration of a sociometric test on successive days. The general findings regarding sociometric devices include the conclusion that "choice status," *i.e.*, acceptance or rejection, of the individual does not change rapidly.

Sociometric devices, while often useful to counselors in secondary schools or colleges in dealing with the everyday problems which they meet, are not often administered by them because of the methodology involved. Instead, such studies are made by researchers in departments where

[11] Jennings, Helen H. *Leadership and Isolation: A Study of Personality in Interpersonal Relations.* New York: Longmans, Green & Co. Inc., 1943. Pp. 28–31.

[12] Newstetter, W. I., Feldstein, Marc J., and Newcomb, T. M. *Group Adjustment.* 1938. P. 35.

[13] Zeleny, Leslie D. "Sociometry of morale," *American Sociological Review,* 1939. 4:799–808.

group activities are dominant, such as sociology, dramatics, dancing, physical education, and the like, and in extracurricular activities. The counselor should make good use of data from these sources whenever they become available and check them against similar findings from the longitudinal case histories of his counselees. Such materials often throw a clear light on previously obscure reasons as to why a counselee is succeeding in his academic work beyond his estimated abilities or is failing in it because of anxieties generated by his social isolation on the campus. They may also give illuminating insight into behavior patterns that will mean acceptance or rejection in employment and thus strengthen the counselor's prognosis and increase the validity of his predictions.

Semantics and Projective Devices

Experienced counselors are well aware that many of the problems which trouble people cannot be discovered by direct questioning. Counselees may reveal easily information about themselves which has little or no emotional toning. Many shut up like clams when asked about matters which have deep personal implications. Some causes of confusion, conflict, and suffering are so deep-seated that the counselee cannot disclose them because they are well hidden even from himself or they are buried under long-established surface rationalizations. Psychologists and related professional workers have spent much time, energy, and brains in the quest for tools and techniques which will open up these hidden sources of maladjustment. The quest has been fruitful and the evidence lies in part in semantics and in part in the well-known results of the development of projective devices.

Semantics as a Counseling Tool

It is increasingly being recognized that organized and intensive study of semantics provides one of the newer and

more promising tools for the counselor. Formal training in it must still, for the most part, be self-training, since there are as yet few higher institutions offering formal courses in the field, and few individual college teachers who introduce portions or condensations of it into other courses in education, psychology, logic, or English. But the counselor in training or in practice will find reading in this field richly rewarding. A short list of basic materials on semantics is appended to this chapter. It is our intention here not to go into the theory of semantics at length, but to suggest some of the ways it may be used in counseling practice as one instrument for speedy identification of some of the underlying causes of student problems and as a method for helping to clarify them.* While not many counselors have yet consciously acquired skills in its use, numbers have unwittingly stumbled upon a few of its elements and employed them with satisfactory results.

In the practical clinical situation, the use of semantics as a tool for diagnosis and therapy is largely a matter of the counselor developing the ability rapidly to analyze the speech and writing of his counselee, to judge the words he uses, the meanings he appears to assign to them, and his behavior reactions to his own and the counselor's words as *symptoms* and even as *causes* of problems, confusions, and conflicts. It is too easy for the neophyte counselor to skim a personal history or an autobiography and gather from it only a general impression and a cluster of factual details and to miss entirely the *significance of the way in which things are said.* It is also far too easy to do the same thing in an interview, to listen with "half an ear," to jot down in the case notes only items like "owes $100," "in army 4 years" or such generalizations as "thinks he wants engineering" or "wants to be married." Useful as these

* For an extensive treatment of both basic theory and suggested application in counseling as well as a review of clinical experiments in schools, see Camp, N. H., Jr. *A Semantic Approach to Guidance.* Unpublished doctoral thesis, University of California, Los Angeles, 1948.

may be, a counselor employing semantics will find himself looking or listening for verbal signs of inner rigidities, anxieties, misunderstandings, bewilderment, and tensions. Just as, in simpler fashion, a sensitive mother can distinguish between the modes of crying of her baby and know which means that he is hungry, sleepy, angry, or in pain, so a skilled semanticist can identify certain far more complex central tendencies in the personality of a student whom he is counseling, by reading and listening to the words he uses and observing the way he uses them.

Murphy,[14] in discussing this concept, states part of the basic theory of applied semantics in counseling when he says:

> Personality differences are in large measure individual differences in response to symbols. A word, a gesture, a nod symbolize different things to different people. Two children in the sandbox live in two different worlds; two men behind roll-top desks respond utterly differently to the same appeals for charitable contributions.
>
> Yet we have told only half the story when we say that individuals respond differently to different symbols. People carry around within them their own symbols; their own inner cues keep them oriented to distant objects. . . . As life goes on, people develop more and more symbolic activity of this type, activity that refers to the world with which they deal; the personal world is largely comprised of the idiom of these personal systems of symbolism. The stuff of such symbolism proves, in most people, to be largely patterns of *words* acquired early and constantly enriched and complicated through use in a wider and wider variety of situations. . . .
>
> Even at two and three, vocabularies differ greatly. Between three and six, vocabulary may be an especially revealing clue; some children frequently use feeling tone words* which are

[14] Murphy, Gardner. *Personality.* New York: Harper & Brothers, 1947. See especially Chap. 11, "The world of symbols" and Chap. 12, "The world of values," pp. 247–295.

* The authors observed a three-year-old who used such expressions as "My granddaddy is not a dirty brat," talked about "a soft gray

never used by others. Even at college age it is possible to formulate a picture of personality comparable to what is available through formal projective tests by systematic analysis of language patterns.

Murphy further points out an important principle, which is that our world of symbols and our world of action are not separate and different but constantly interact upon one another, building up new patterns of both or destroying old ones, so that there is at once a continuous crossflow and a forward movement. He shows that we are forever talking to ourselves at the silent level, and, by so doing, drive ourselves to act and, as we act, our overt behavior reforms and enriches what we say both to ourselves and others. He finds, therefore, that, when life presents us with a problem, an ambition, a danger, we inevitably express our feeling and thinking about it in words and mannerisms. Because the more intensely we feel and think about problems the more concentrated and vivid is our language, we reveal to an alert counselor in our writing and talking the things we most value or most fear and thus uncover our pattern of values which is one of the dynamic sources of what we are and what we do. Thus our words will show him whether our major drives are for power, money, beauty, religion, affection, prestige, or escape from trouble. We uncover our idealizations and our despisings, our successes and our failures. We demonstrate whether our attitudes are structured to make us tolerant, rigid, "cocky," irritable, timid, tough, friendly, etc., and these are basic to the counselor's diagnosis of our problem, to his analysis of alternate paths to progress, and to accuracy of his prediction as to how we will come out if we follow one path or the other. As Murphy[15] says,

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creature" and "a ferocious hippopotamus," and, while playing with a pair of china pigs and being asked what the one said to the other, answered, "They can't talk, they are inanimate."

[15] Murphy, *op. cit.*, p. 282.

It is not only the poet who betrays himself in his favorite words; every person's favorite words suggest patterns for classifying the world and his relation to it. Within the matrix lie a few words which, because they represent ways of regarding the self, are among our most important clues to the study of personality.

A considerable body of research has been devoted to semantics, but much more is needed both to analyze it as a tool and to discover the techniques for its increasingly efficient employment. While it is not possible in the short space here available even to summarize all of the most effective uses of semantics in educational-vocational counseling, it is hoped that the following samples of more easily used methods may stimulate the reader to undertake extensive reading and self-training. Some, then, of the things for which a counselor may profitably watch in the autobiographies and themes of students and especially in their talking in the interviews are these:

1. Clarity or confusion in questions. Clear answers may be found only to clear questions. To confused ones, there are no answers. School and college counselors are continually beset by such unanswerables as, "Is medicine better than law?" with never a qualifier as to what area within the field, and what level within the area is "better" for whom? at what time? under what circumstances? Again they are asked "What is the secret of success in college and career?" without the asker having any real notion of the many meanings of "success" or of "secret." Or such a question as this is fired at them: "I read an article on *Personality, the Key to Big Jobs.* How can I develop a personality?" Such questions indicate vague and confused thinking and feeling and should alert the counselor to the fact that he has a long and difficult task ahead in helping his counselee to sharpen his symbol system to the point where he can ask questions that can be answered, can formulate such queries as these, "I am puzzled about whether to take a course in law or medicine. What do I have to do to find out how long each takes to complete?

what the costs are? what kinds of jobs there are in the two fields? etc." Or "My friends tell me that I give too many people the impression that I look down on them. What do I do to give this impression? How can I correct it?" Unfortunately most of our formal education is centered on training people to answer questions, not to ask them, and those that teachers ask are often unanswerable.

2. *Evidences of unconscious projection.* A sane and well-adapted student knows that in interpreting ideas, events, and processes he projects himself, his background, his experience, and his feeling into his interpretations, and that these are different from those of others and different, too, from his own at an earlier or a later time. He will, therefore, in his use of language constantly qualify his statements with such phrases as "it seems to me," "I think," "I assume," "it looks to me as if." If, on the contrary, he is unaware that he is projecting he will make unqualified flat statements such as, "Economics is a lousy course," or "This university has high standards, is the best in the country," or "Nobody likes me," or "I have a fine mind." In serious neurotic or psychotic states such language patterns are the clearest of clues to disturbance in patients and reveal the fantasies of the schizophrenic or the delusions of the paranoic. Even within the normal range, however, the watchful counselor can readily pick up this kind of verbal clue to attitudes and conflicts of his counselees.[16]

3. *Overdependence on or cynicism toward authority.* In the things that students write and say it is comparatively easy for a watchful counselor to identify a tendency that may range from one counselee's accepting as gospel truth everything that the counselor, teacher, dean, or parent says; through a rational balanced questioning of authority expressed in such questions as "How does he know?" "What does this really mean?" etc.; to a negativistic cynical rejection of all authority as in such statements as "The Bible is

[16] See especially Johnson, *op, cit.*, pp. 60–65; and Murphy, *op. cit.*, Chap. 27 and 28, pp. 646–700.

the bunk," "All professors are long-haired and impractical," "You can't believe anything the boss says because he's just trying to get work out of you and make profits," etc. Counselee statements, indicating either overacceptance or habitual rejection of authority, will serve as warnings to the counselor that he probably has a complex and difficult job to break either one of these habitual attitudes before he can begin a rational analysis with the student of his vocational-educational problems.

4. Ability to distinguish facts from opinions and inferences. This is obviously closely related to "projection" and "authority" but serves as a further guide to analysis of the writings and speech of counselees. It has to do primarily with the process[17] of abstracting at various levels from the submicroscopic to the highest inferential. What this shows is that many of the problems and confusions of counselees arise from their being conclusion-jumpers. One observes the fact that Professor So-and-so looks grim this morning, his mouth is set, he passes by without saying "hello," and one jumps to the conclusion that he is angry at one. The professor's appearance is a fact. The inference drawn is not fact. He may have lost money, had a death in the family, been up too late at a party the night before, or any one of many things may have led to his dourness this morning. Similarly, a counselee may conclude that because his grandfather was a successful preacher he "has preaching in his blood." False abstractions of this sort, generalizations founded on insufficient evidence, are all too common in human speech and writing and serve as important clues to individual quandaries.

5. *Identification.* One of the basic symptoms, and often

[17] For treatments of this process see, Korzybski, Alfred. *Science and Sanity.* Lancaster: Science Press, 2d ed. 1941, on "The structural differential"; Johnson, *op. cit.*, Chap. V, "The world of not-words," pp. 91–111; and Camp, *op. cit.*, pp. 107–119; and for an illuminating application of this formula see, Vogt, William. *Road to Survival.* New York: William Sloane Associates, 1948. Pp. 48–56.

one of the causes, of people's troubles is that they identify words with things. While this is clearly observed in an insane patient who falls down because he tries to sit on the word "chair," it is not so sharply seen in the common habit practiced to their continuing confusion by most individuals. This is the habit of thinking and talking as if a word, a name, a label, a symbol, pinned down the thing it identifies and that the thing is always the same, all the time. Thus we get into manifold troubles by acting as if a boy labeled John Smith is the same today as he was yesterday and will be the same tomorrow, when any sane person knows that, so long as he is alive, he is changing.

6. *Allness.* Related to identification is the habit of assuming that all Negroes are the same as one Negro, all "Reds," all Methodists, all Republicans, all bankers, all union organizers, all professors, all small boys, are the same as one. We mistake the map for the terrain like the youngster who, on his first airplane flight, was astonished and disappointed that the state of New York was not all blue, and Pennsylvania yellow and Maryland pink. Parents and teachers sometimes think that one misdeed brands a boy as "all" bad. A counselor in school or college frequently finds that his counselees say they "know all about" a course of study, a group of people, or an occupation. Failing to recognize that nobody can know all about anyone or anything, such counselees are frequently in trouble, since they talk and act in accord with their arrogant idea of complete knowledge. They are bored with, and frequently fail in, their courses because they think they "have already had that stuff." They foul up their social relations because they think that "all fraternity men are high-hat" or "all sorority girls are pretty nitwits." More dangerous still is the feeling that "all others have it in for me."

7. *Either-orness.* Another verbal warning flag that counselors trained in semantics will watch for is phrasing that shows the counselee sees many, or most, things in extreme contrast. He appears to be incapable of appreciating the

always present gradations between extremes. A classmate is either "brilliant" or a "moron," a teacher or an occupation is to him either "wonderful" or "lousy." He is to himself either a "success" or a "failure" and the things he does are "good" or "bad." Any student grounded in this habit is constantly in trouble. The counselor has a tough task to get him to see, for example, the principle of his own multipotentiality, or to understand the concepts of job families, occupational fields, and levels. It is hard to get him to realize that "high" mechanical ability does not necessarily land him for life in a machine shop but may be essential to his career as a surgeon, a pianist, or an air pilot.

8. *Verbal output.* Both talking or writing too much and too little are also indices to a counselor of students in difficulty. Students who blurt and babble and those who are tongue-tied both show symptoms of a variety of confusions, anxieties, and attitudinal problems that need probing and therapy. The overglib, fast talker is almost certain to be a poor listener. He is likely also to reveal rigidity in his thinking, talking endlessly about the same things in much the same verbal patterns. To get him to slow down, to stop, look, and listen, to read, and to ponder may often be the only way to help him get out of a deep mire of half-truths and come to an understanding of himself, his schooling, and his proposed work. The hesitant, slow, stumbling talker or writer usually evidences in what he says, and even more in what he does not say, disorganization of his symbolic systems. Unless and until the counselor can help him to reorient and structure them he is unlikely to make progress toward solution of his educational-vocational problems.

From this brief discussion of semantics as a counseling tool, it seems clear that many clues to counselees' difficulties and many means of finding ways out of them lie in their written and spoken language, in the way in which they say things, and in the mannerisms, posture, gesture, facial expression, and the like, which accompany the flow of talk or pen. It is hoped that the reader will explore the litera-

ture in this important field and steadily expand his knowledge of and practice with it in educational-vocational counseling.

Projective Devices

Projective devices make use of the magician's hand-is-quicker-than-the-eye device of misleading. They permit the trained observer to go behind the masks which all of us wear and to observe much of our real selves without our being aware of what is taking place. Sound training and long experience make the clinical psychologist and psychiatrist competent to analyze with more than a fair degree of accuracy what underlying factors are the cause of trouble. It is obvious that this process is perilous for any counselee who is subjected to such probing by an unskilled, awkward amateur. High school and college counselors who deal primarily with the "normal" problem categories from day to day will use projective instruments only with extreme caution unless they are highly trained, and, even then, they will be wary of their interpretations and check them with a specialist.

In any case the skilled general clinical counselor cannot afford to be ignorant of such important tools and the techniques developed for their use. Their values in clinical work cover the whole range from simple educational-vocational to the most complex emotional problems. In the former, they often reveal interests, attitudes, prejudices, and fantasies that inhibit successful achievement in school and college or on the job. In the latter they may speedily uncover areas of fear, rage, and anxiety and give an inkling of their causes.

Examples of projective devices are: free and controlled word association tests, including the psychogalvanometer or lie detector; open-end sentence tests; the various thematic apperception tests; the Rorschach inkblot test; play therapy; and the psychodrama. Despite surface differences

among these various types, they are closely akin in their common function of tapping the inner deeps of the counselee's personal life. We shall give here only the briefest description of a few of these tools and leave the reader to explore as far as he may the extensive literature about them.

Word association tests. In simplest form these consist of handing the counselee a printed or mimeographed list of words, or writing these on the board, or speaking them aloud to him. His task is to write down or say instantly what the word given reminds him of. The essence of administering such a test is a fast delivery and instantaneous reaction on the part of the subject, since we want his "projection" of meaning before he has time to think, to put up his guards. When the tests are used in connection with semantic tools of counseling and checked against other elements of the case history, the unfolding of individual differences is often startling. Thus if we give the word "hanging" to different students the responses may be as widely varied as "lynching," "pigtails," "cretonne drapes," "that so-and-so is too good for . . . ," "Dachau concentration camp," "dressmaking," "gardens of Babylon." When used with the psychogalvanometer, the subject does not usually answer with words, but his uncontrollable reactions to word stimulus in terms of more rapid pulse and breathing and increased blood pressure are recorded and interpreted by the observer.

Sentence completion tests. These are almost always written. An ambiguous statement beginning a sentence and referring to the subject or to another person is set down and the counselee completes it. For example, it may start "What I most want out of life is . . . " and be followed by "The one man I have most hated was . . . " or "My best friend blew up when . . . "

The OSS staff,[18] after trying out a number of projective devices, found this type most useful and finally employed it to the virtual exclusion of other forms. One reason was that it seemed much easier to interpret the significance of

[18] OSS Assessment Staff, *op. cit.*, pp. 71–75.

longer statements than single words. Careful preparation of the unfinished sentences can tap almost any areas of personality wished for, such as the twelve listed in the OSS reference and others. Those that result in unique or largely different answers from student to student are kept as good, and those that result in repetitive stereotyped answers are discarded. Like other projective instruments, the sentence completion is not scored but interpreted and its effectiveness and validity depend on the insight and experience of the counselor and on the interpretations being checked against the results of the interview and other tools of counseling.

Thematic apperception tests. These are usually a series of ambiguous photographs or drawings which the counselee studies briefly and then interprets to the counselor orally or in writing. For example, given a page showing ten small photographs of college students, the counselee may be asked to tell which of them he thinks are "bright" and which "dumb" and why, or which are Jewish and which gentile and why. Or he may be given a drawing of a battered ship plowing through a stormy sea, or of a child sprawled on the floor and a woman bending over her, the latter so posed that she may either be imagined to have knocked the youngster flat or to be about to help her up and comfort her. The subject is then asked to interpret what is happening. As he does so, he is bound to project into his description his own feelings about the sea or about mother-child relationships.

The Rorschach ink-blot test. Nearly everyone has looked at clouds in the sky, at rock and tree forms, and at reflections in the water and exclaimed "That looks like a castle" or a fish, or a fat old woman. When we have done so we have projected, often our inmost hidden desires and fears, into these natural forms. Many of us, as children, have had fun putting a drop of black or colored ink on a piece of paper and then folding or crumpling the sheet to spread the ink blot into forms sometimes familiar, sometimes strange and

weird. Rorschach, using this process, has developed a series of ink blots, has standardized them, and, with his associates, worked over a period of years, administering them to normal, neurotic, and psychotic people. By patient experiment he has moved toward standardization of interpretation of the results of what people imagine when they study these blots. Hence, one thoroughly trained in this technique can make tentative diagnoses of a counselee's personality structure and of the causes of his difficulties that are fairly reliable.

Observed free play. In employing this projective device, a child is put in a room with such toys as a mother doll, a father doll, a brother and sister doll. His behavior at play with these objects is watched by a clinician through a one-way screen. If he tries, as frequently happens, to destroy one of them by strangling, punching, or tearing apart, he can be assumed to be demonstrating a conflict with one or another of his parents or siblings which he has to suppress at home. On the contrary he may, by reverse of this behavior, by fondling, petting, and kissing the doll image, indicate overaffection or dependence, etc. Similarly, observations may be made of child and group reaction when two or more are let loose in the playroom together.

The psychodrama or role playing. This projective device, as an instrument for the study of personality factors, is comparatively new and promising. Basically this tool derives from the long history of man's pleasure in acting, of playing out on a stage his own or others' imaginings and dreams of conflicts, struggle, and heroism, thus projecting his idealizations, his loves, his hatreds into the character that struts the boards. It is related to the free play of children, as they try to behave like Marine snipers, flyers, mamas and papas, or builders of dams and castles. While high school and college students and adults are much more inhibited than children by self-consciousness induced by social mores, if they can be brought to feel that "it doesn't matter because we are, after all, only playing a part," they will reveal many of their most deeply hidden passions,

prejudices, and troubles when they "throw themselves into a role." This appears specially true if they are given only the bare outline of a simple plot and all the acting, the stage business, and the lines they speak are quite impromptu. The effectiveness of psychodrama or role playing is found to be increased if the part to be acted out is the reverse of the usual daily life pattern of behavior. For example, if a student imitates the character of a teacher, dean, principal, or president, or if a labor leader tries for a while to pretend he is a business executive and vice versa, each demonstrates, in sometimes startling ways, his attitudes, rigidities, and emotions which he may have previously suppressed and obscured even from himself. An observer trained in psychology can school himself to interpret behavior in this setting and to widen and deepen his insight. Not often can a counselor himself create and produce psychodramas, but he may, if he knows how, draw important information about his counselees from role plays put on by departments of speech, drama, psychology, or education. This device was used with extraordinary effectiveness by the OSS staff in assessing its candidates,[19] and their report seems to the authors to give many leads to future experiments in educational and vocational counseling.

Rating Scales

The rating scale is an instrument so widely used that there appears to be little need for a description of it here other than to say that it is a written formalization of subjective judgment, an attempt to put on paper a word like "morale" or a phrase like "selection of occupation" and follow this with a 3 to 10 point series of categories, such as *good, mediocre, bad,* or *very poor, poor, fair, good, excellent,* and then ask one or more people to peg down, by a check mark, their judgments of a counselee.

[19] See especially *op. cit.*, pp. 91–112, 133–138, 147–159, 168–177, 189–197.

Important to our purpose is the fact that many users of rating scales are not aware of the kinds of errors which creep into the recorded judgments of even the most skillful raters and that multiply in those of untrained ones. Among these are the errors of

Leniency, an impulse on the part of many raters to be overgenerous in their appraisals, to feel that they do not want to limit another human being's opportunities by expressing unfavorable opinions of him. Sometimes this arises because the raters are themselves warmly optimistic. Sometimes it comes from their own insecurity and fear of a kickback, as in the Biblical adage, "Judge not, that ye be not judged." Sometimes, as in the armed services, leniency is forced upon raters by a system of scheduled fitness reports; in this system, if the estimates are even mildly condemnatory, the consequences are severe for both the raters and the rated, entailing full written reports, hearings, and occasionally courts martial. A counselor using rating scales is, for these reasons, compelled to make a judgment in each case as to whether he should discount the favorable ratings and if so, by how much. Less frequently this pattern is reversed and we find grim, tough, pessimistic raters who almost invariably make negative appraisals.

Central tendency, a common habit of some raters to assume that very few people are either wholly lacking in, or possess a high degree of, the qualities being appraised and who therefore tend to bunch all their judgments around the middle of whatever scale they are using.

Faulty logic is an error committed by some raters who argue that since student A looks and acts much like student B, therefore B should be rated in the same way as A.

Halo is the mistake of assuming that "nothing succeeds like success" or fails like failure. In this, for example, the rater knows that a student once cheated and assumes, therefore, that he will always cheat. Or he knows that the young man did a superb job in his course and concludes that he must be a brilliant student in all subjects.

In contrast to these basic errors, the following generalizations regarding rating scales are based on research evidence which gives them some validity:

1. Two ratings by the same judge are no more valid than one.
2. Self-ratings tend to be high on desirable traits and to be low on undesirable ones.
3. One tends to rate his own sex higher than the opposite sex on desirable traits, the reverse being true on undesirable traits.
4. Men are more lenient in their ratings than women.
5. In self-ratings, superior individuals underestimate themselves and inferior individuals overrate themselves, the latter having the greater error.
6. Parents overrate their children as a rule, but they underestimate superior children.

As can readily be seen from this brief review of some of the errors and fallacies in rating, reliability of scales varies with the traits being judged, with the experience of the raters, with the purpose of the ratings, and with the conditions under which they are made. Even so, rating scales are often the best available instruments for collecting certain types of information for counseling, and we must use them provided we are consistently cautious in checking their reliability. The reliabilities of ratings reported in the literature tend to run between correlations of from .40 to .60. Under special conditions they may go higher.

The question of validity of rating scales is also a difficult one. The necessary outside criteria against which to measure their validity are hard come by. When we find such criteria, we must ask whether they are any more valid than the scale being judged. Both the trait being judged and our criteria for validating it are often highly complex. Suppose, for example, we are attempting to rate a student on his "ability to get along with others." We have to determine what we mean by "get along with" and define "others." Does "get along with" mean just tolerance, slavish "yessing,"

or intelligent adaptability under normal circumstances, or does it include easy adjustment in situations of crisis and extreme social stress? Does "others" mean everybody, children and oldsters, male and female, crooks and saints, or do we limit "others" to certain kinds of persons? Because of this complexity most studies of rating-scale validity indicate a ceiling represented by an *r* of .60 and usually the correlation with a criterion or criteria is markedly lower than this. The counselor can put trust in the results of rating scales only if he knows the raters well and if, in addition, he uses other tools as crosschecks. The rating scale used alone is a weak and inefficient counseling device.

Occupational Information

One of the earliest modern tools to be widely used by educational-vocational counselors was occupational information. Because so few valid and reliable tools were available to the applied psychologist prior to 1920, occupational information was then employed in ways that now seem primitive and often silly. *Man analysis* was still in an infantile stage when *job analysis* had reached its adolescence. Among other things, this lag caused our former sharp, artificial division of counselors into "vocational counselors" and "clinical counselors." We did not yet realize that one relatively untrained in psychological tools and techniques should not attempt the complicated task of matching individuals (man analysis) with occupational outlets (job analysis). We did not yet see that a person trained as a "pure" psychologist, chiefly with rats, guinea pigs, and dogs as his subjects, should not attempt educational-vocational counseling of human youngsters without extensive additional preparation in personality analysis and studies of the world of work. The amount and kind of occupational information necessary to enable these psychologically trained counselors to work with educational-

vocational problems was long debated. One school of thought insisted upon their acquiring detailed knowledge of a large number of different occupations, spending much time and effort on keeping this type of information current, and gearing this knowledge into an equally detailed study of educational preparation for all the multitude of tasks by which men earn their livings. Another school held that other methods would be more fruitful, since it would leave time for the counselor to perform his major function of working with individuals. This latter point of view has become dominant, and with it we shall be chiefly concerned.

The first position taken is that counseling is so complex as to field and level that no one person can begin to master all of it and that, therefore, it must be divided among various professional workers. When this principle is applied to occupational information, current and applicable to local and regional conditions, it is clear that the staff members of the United States Employment Service, workers in each of the state employment offices, and personnel people in major industries are the specialists who now gather, analyze, and distribute most of the pertinent material needed by counselors. While much still needs to be done, the nation and the world over, to improve and coordinate both job analysis and job forecasting, it is clear that this work is not that of the educational-vocational counselor. Instead it is his task to make himself thoroughly familiar with all available sources of vocational information, to demand that they increase and perfect their services, and to declare his specific needs for such materials. The counselor, then, should train himself to keep informed about and to use:

1. The various methods of classifying occupations, including the United States Census classification; the *Dictionary of Occupational Titles;* the several hierarchies of job classification by a single academic intelligence criterion, with the Barr-Taussig Scale as the prototype; the classifications growing out of the theory of mental organization

typified by the work of T. L. Kelly, L. L. Thurstone, and the Minnesota Occupational Rating Scales; and the classifications arising from factor analysis of measured interests, following the work of Strong, Kuder, and Darley.

2. *The job-family approach,* which has been an increasingly important concept because of its recognition of human multipotentiality and of similarity in job functions and processes. Counselors must be in a position to identify the brothers, sisters, aunts, and cousins of specific job labels and trace this kinship through aptitudes, abilities, and interests essentially common to a number of occupations whose *names* give no indication of any such relationship.

3. *The critical analyses of occupational trends,* by which are swept aside the clutter of irrelevant facts which accompany so much of our material in the field of job description. For example, much of the information about a job supplied by writers of pamphlets and monographs tends to be no more than a factual recitation of such information as the number of workers in a field, the salaries or wages which they draw, and the shift in numbers from one census to another. Careful analysis of the first of these may clarify our point. We ask, "What difference does it make whether there are 1,000,000 workers in the field or 2,500?" Critical study may show that the occupation with the large number may need twice as many workers, or half as many, in the next decade. The occupation with the smaller number may be the last remnant of a rapidly dying type of work, or the first group of employees in a field that will expand hugely. A report that an occupation is filled may be true on a national basis but false in a given region or small locality. Interpretation of job statistics seldom takes into consideration the probability that many jobs are threshold ones and that the workers now employed in them will not stay but tend to move on up. Only when job families are clearly understood can counselors know that when clerical workers are walking the streets in search of work, their clerical skills *coupled with other skills* may open employment to most of them.

4. *The understanding of social forces* which bend employment trends in various directions. Too few counselors watch the labor-management struggle which leads to changing labor legislation and to shifting union policies on apprenticeship and hiring. Not enough counselors read of science, invention, and their resultant technological changes, in process or impending, nor do they study the probable impact of national and international political and economic moves. In our complex world, even the best of counselors can see only a portion of the action of these powerful forces and can predict their effects only a short way ahead, but it is essential that he do all he can to read the road signs set up by specialists in economics, political science, sociology, and education, rather than to try to become himself a specialist in any one of them.

Disseminating Occupational Information

It appeared reasonable, when counseling was young, that young men and women would surely make sounder educational-vocational decisions if only they were better grounded in the facts of the world of work. At first glance this appears to be a logical assumption on the principle that we cannot perform effectively without knowledge. But this ignores the corollary principle that possession of knowledge is only one element in the power to do things. One may know a vast amount about opera and still not be able to carry a tune. Many teachers of business administration cannot practice what they preach and make fortunes. This was forgotten when the first courses in occupational information were established in the naïve hope that they would do the trick. When it was found that such courses were not enough, counselors and teachers, cooperating with school and college librarians, tried a number of supplementary methods for the purpose of placing accurate job information in the hands of those deemed to need it. Little sound research was developed to determine the efficacy of either courses or vocational libraries. Such early studies as were

made, for the most part, showed only that those who had had a course or read books and pamphlets about occupations could reproduce more information on an examination based on the course or book than could an individual who had not taken the course or read the materials. Many falsely concluded from these results that, since students now had better, or more, information about occupations, their career choices would be superior to those with less formal information. They did not see the fallacy in this line of thought which may be clear if we make the same assumptions about health education. If we were to administer examinations to students who have had a course and readings about health, and then administer the same examinations to a matched group of convalescents in sanitaria or hospitals for various long serious illnesses such as tuberculosis, we would probably find that those with the highest scores were those with the poorest health!

A second criticism of the traditional techniques of disseminating occupational information is the tendency for school and public libraries to accumulate bound books about various occupations. These are almost always "dated" in terms of the conditions prevailing at the time they were written. A review of any such volume, say Pitkin's *New Careers for Youth*, published in 1934, will demonstrate how outmoded it becomes, sometimes almost before it is off the press. His chapter on nursing as a career was written without any anticipation of the coming war, of how that conflict would increase enormously the demand for nurses, and of how it would extend the types of training and services required. The bound book on occupations should usually be consigned to the yearly bonfire every counselor should light to destroy obsolete and erroneous materials. If it is left embalmed in the library, it tends to increase the errors of both counselors and counselees as it becomes more and more outmoded.

Another fault of both books and the more practical, because ephemeral, pamphlet materials, is that they tend to be highly specific about jobs. Relatively few such publications

are based upon any concept of field-level* choices and the functionally related occupational families which arise from such concepts. The difficulty with specificity is that the individual, seeking to attain balance in his educational-vocational planning, is plunged into details before he is oriented to the general hypotheses underlying his alternative choices of a career. A job description of what a lathe operator does usually lacks appropriate materials describing numerous related jobs requiring quite similar aptitudes, abilities, interests, training period, union affiliation, and a dozen other more or less important variables. The work of the lathe operator appears in isolation, ignoring the multipotentiality of the average human to perform, successfully and with satisfaction, the duties in perhaps as many as a thousand jobs with different names.

These early faults in occupational materials have been partly overcome, and the materials are now fairly adequate and are constantly improving. It is in our methods of using them that we still make our most grievous blunders. The first common mistake in method is failure to set clear, achievable objectives for group programs aimed at the dissemination of occupational information. Too frequently we still assume that our objective is improved educational-vocational choice which is a goal that can be reached only by intensive individual counseling to which group methods may make some contribution. If the group method consists primarily of "talking at" students about jobs, it is even less likely that we shall attain this objective. The authors know of not one study reported in the literature which gives us any reason to believe that the talking-at-groups technique by itself gives results better than chance in improving educational-vocational choices for its victims.

This is not to say that such courses, dealing with the seamless web of the economic life of man, have no value. On the contrary, social science studies of jobs and workers, of their dependence upon one another, and of such basic principles

* The field-level concept is discussed in detail in Chap. 3.

as supply and demand for human labor are essential to the general education of American high school and college youth. Through these curriculums he may learn how mechanics and engineers, farmers and foresters, managers and salesmen, secretaries and officials, doctors and teachers, all depend for successful employment upon each other. With this objective for teaching occupational information, trips to farms, industrial plants, and business offices; showing movies of mining, sculpturing, and dressmaking; and lectures, readings, and discussion have rich meaning in demonstrating the dynamic structure and operation of society. But there is no evidence that such schooling has any but the most incidental and casual effect in helping its students to make individual wise choices of the work they should do.

Of similar futility, unless they are undergirded by intensive individual counseling, are the widely used techniques of "career days," "one-shot" vocational conferences, and interviews with local workers. The fundamental fault in each of these is that too much is attempted in too short a time. Each is based on the illusion that choosing a career is an *event* of a single hour instead of a *process* of years of growth and learning. One or two career days out of a school year, set aside for the discussion of the vast complex of job fields and levels with a whole college freshman or high school senior class, cannot be anything but confusing and superficial no matter how well it may be organized. Many schools and colleges have tried one-shot conferences. For this they employ a "vocational guidance expert" for a day or a week and run the class through his hands individually, allowing perhaps ten minutes, at most half an hour, for each conference. In such a lick-and-a-promise scheme, the results are more often than not highly directive and usually tend either to confirm wrong choices or to throw the student off what seemed to him a sound track into bewilderment. As for single interviews instead of a series of interviews with local workers, these also are more frequently ineffective than not. Often men and women invited by the

administration to describe their jobs to students are professional people in law, medicine, nursing, engineering, etc., and the 80 per cent or so of the students who will not carry through any professional training are either left out or are persuaded to try a field and level beyond their abilities and outside their interests, with inevitable frustrations as a consequence. Moreover, the majority of workers in other fields than education are unskilled in teaching, do not know how to organize and present the structure, requirements, hazards, and rewards of the work they do. Some get bogged down in detail. Some have nothing to offer but glittering generalities. Some are overenthusiastic and oversell their professions, while others are lugubrious and discouraging about theirs. In view of these common failings, administrators and counselors planning to use any of them would do well to make sure they are used merely as minor auxiliary services to individual counseling and that they are organized so as to produce such small benefits as they are able to produce and to avoid as much confusion and harm to the students as they frequently have in the past. Stone's[20] crucial study suggests that if these principles are observed and these techniques used cautiously as supplements to intensive one-to-one counseling, the reliability and validity of the application of occupational information as a counseling tool may be much increased.

A Systematic Approach to Using Occupational Information

It is obvious that no one can make a blueprint for disseminating occupational information which will fit all situations. The experience of the writers, however, supports Stone's conclusion that this tool is most effective when used in conjunction with other psychological instruments of the clinical counselor. Therefore, certain general principles are presented here with the knowledge that they may not find favor with the traditional vocational counselor or be par-

[20] Stone, C. Harold. "Are vocational orientation courses worth their salt?" *Educational and Psychological Measurement*, 1948, 2:161–182.

ticularly useful to the college subject-matter teachers or high school homeroom teachers with little or no training in clinical aspects of psychology. These principles are not intended to apply to the social science courses discussed above, but only to the group teaching of job information as an aid to *individuals* in making better educational-vocational choices.

1. *A group orientation program should be designed only as a prelude to individual counseling* for the purpose of choosing an *occupational field and level.* This program may be most successful if it aims at creating a general understanding of human aptitudes, abilities, interests, and motivations and of the process of matching these to fields and levels of occupations. The concept of the multipotentiality of any individual, and an introduction to the various methods of comparing oneself with various norm groups in which competition may take place, should play an important part in the materials presented. It is essential to break down the all too common notion that "Somewhere in this world, if I could only find it, is just one job that is right for me, just one in which I can be a success."

2. *As the orientation program gets under way, a case history folder should be assembled for each member of the group.* This folder should contain both a longitudinal and a current cross-section picture of each individual as suggested in earlier sections of this chapter.

3. *Tentative choices of field and level of major interest should be made,* and these should be discussed privately with the counselor while the group program is in operation. For example, the counselee who early decides that he or she belongs in a scientific-mechanical field at the professional level need not wait for the group program to end before beginning a study of the various occupational outlets in this job family. Investigation of training opportunities, occupational trends, and specific interests may well be started at any time that he is motivated sufficiently to begin a serious study of his problem.

4. *Areas within a field and at an appropriate level should be narrowed down* to permit more specific planning. At what point this process should be started depends upon timing. For a student who will be leaving school or college in a few weeks, educational-vocational decisions are much more pressing than for an equally able person who has months or years of schooling ahead of him. In most college training the student who takes ample time to reach final vocational decisions may be in a much better position than the one who decides early. In fact, it is doubtful practice for a high school counselor to insist that precollege students make a definite choice. For them, time, thought, new educational experiences, and the college counseling program are likely to ripen and perfect their powers of final decision.

5. *Choices of vocational thresholds rather than finalities should be encouraged.* This principle is important because occupational choices made in adolescent or early adult years are seldom predictive of the level ultimately reached in middle age. The boy who decides to be a carpenter may find his adult ceiling as a construction engineer, with or without benefit of degree. The girl who chooses a career in the field of personal services, say as a beautician, may find her niche in maturity as a businesswoman running a chain of beauty parlors, even though her threshold choice is as an operator. In reverse, when professional levels are chosen, a boy who selects law may find himself no more than a routine clerk or a law librarian years after training is complete. Again he may find that his eventual work is much more closely related to another specialty, such as writing detective fiction, operating as a G-man, or working as an accountant, than it is to the stereotypes of the legal field.

6. *Instructional methods should be far more flexible than those of the traditional classroom.* It is obvious from the foregoing that what is urged is a position between that of the formal teacher-class situation and the one-to-one prac-

tices of the counselor, with both working reciprocally. One need not, then, wholly discard other techniques of group instruction in occupational information, such as readings, preparation of papers on selected job fields, trips, career days, lectures, movies, and interviews with local individuals employed in various types of occupations. Each of these techniques can supplement the counseling series of interviews, independent investigation of local and regional training and employment outlets, planned use of the community as a laboratory,[21] and special methods for increasing self-understanding.

To attain further insight into the inadequate validity and reliability of past and present techniques for disseminating occupational information as an instrument for helping individuals make sound educational-vocational choices, we suggest a review of Williamson's discussion of *fallacies* in his book, *Students and Occupations.*[22] Much further rigorous research needs to be directed upon this problem. In general, it is clear that most administrators, teachers, and counselors have considered occupational information as merely another area of subject matter to be treated in the same manner as history, English, and algebra. Their stated objectives have seldom been put to the test and their methods have for the most part appeared to be as ineffective as would be medical diagnosis of groups, guidance of groups, and "group courtship"—mutually exclusive terms, unthinkingly accepted.*

Statistics

Because the general clinical counselor is an applied psychologist, interested in human behavior and its prediction,

[21] Hahn, Milton E., and Brayfield, Arthur H. *Occupational Laboratory Manual.* Chicago: Science Research Associates, 1945.

[22] Williamson, E. G. *Students and Occupations.* New York: Henry Holt and Company, Inc., 1937.

* The reader will discover some excellent ideas on this subject in Hoppock, Robert. *Group Guidance.* New York: McGraw-Hill Book Company, Inc., 1949.

statistics are a tool of prime importance to his work. It is obviously impossible here to present a fair summary of the principles and techniques of statistics for the counselor, The writers take the position that one cannot use other counseling tools such as rating scales, standardized tests, projective devices, or sociometric measures, unless he has more than a simple understanding of the quantitative treatment of psychological data.

The statistical field is already highly complex. Moreover, new methods and formulas, new and revised principles are continually appearing in current literature with which the counselor must keep abreast. The competent counselor must unceasingly follow statistical research pertinent to his field in the same manner as does a physician or a physicist. If he is not to fall behind professionally, his reading may concentrate in the following suggested journals:

The *Psychological Bulletin.* Lyle H. Lanier, editor. American Psychological Association, Inc., Washington, D.C.

The *Journal of Abnormal and Social Psychology.* Gordon W. Allport, editor. American Psychological Association, Inc., Washington, D.C.

Psychological Abstracts. C. M. Louttit, editor. American Psychological Association, Inc., Washington, D.C.

The *Journal of Applied Psychology.* Donald G. Paterson, editor. American Psychological Association, Inc., Washington, D.C.

Applied Psychology Monographs. Herbert S. Conrad, editor. American Psychological Association, Inc., Washington, D.C.

The Journal of Consulting Psychology. Laurence F. Shaffer, editor. American Psychological Association, Inc., Washington, D.C.

Educational and Psychological Measurement. G. Frederick Kuder, editor. Box 6907, College Station, Durham, N. C.

The *Journal of Clinical Psychology.* Frederick C. Thorne, editor. Medical College, University of Vermont.

The American Psychologist. Dael Wolfle, editor. American Psychological Association, Inc., Washington, D.C.

To be able to read, understand, and apply the materials in these and other journals the clinical counselor must master a new and important technical vocabulary, a new foreign language in English, including the meanings of such terms as

Fiducial limits	Universe
Significance of a difference	F ratio
	Contingency
Residual variance	Chi square values
Multiple regression coefficient	Nonlinear relationships
	Solution of Beta coefficients
Covariance	Parameter

He must also build into his comprehension many statistical symbols that puzzle the uninitiated, for these symbols are the shorthand for stating the procedures and results of psychological research. If such symbols as the following are not understood, much of the meaning is lost.

$r\infty$	X^2
ϕ	σ
C	σ^2
R	"t"

It is not enough, therefore, that the counselor have a single course in elementary statistics in his undergraduate or early graduate program. Even the addition of an intermediate course in computing various statistics does not adequately prepare him. Perhaps the answer lies in developing a course or courses entirely devoted to reading and interpreting current literature in statistical research, and in continuous applying, under supervision, during internship and in staff conferences.

A further problem is posed for the counselor who not only must function in working up case histories and interviewing several hundred cases, but who is also assigned responsibility for conducting research. There appears to be an increasing tendency for this research function to be allocated

to counselors in educational institutions. Those in business and industrial institutions are also often expected to aid in, or direct, research programs. When this is the case, the counselor must become relatively sophisticated in the common statistical procedures, including the design of experiments, sampling procedures, and small-sample statistics. Whether this knowledge is acquired by informal study, or through formal course work, he must attain competence if he is to hold on to his job.

It is certain, then, that the counselor who makes use of any results obtained from standardized psychological tests must understand the statistics upon which they are based. He must have a general understanding of statistical procedure and interpretation and a specific knowledge of the statistics used to validate specific instruments. The counselor who buys and uses tests without such understanding treads upon dangerous ground and may do irreparable damage to the very students he would help by false and misleading interpretations or ruin his own career by making stupid errors in research projects under his direction.

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Chapter 6. APTITUDES, ABILITIES, SKILLS, AND ACHIEVEMENTS

Many terms used in the literature of educational-vocational counseling serve to label important theoretical and practical concepts useful in all phases of analysis, case study, diagnosis, and recommendations. Each counselor needs to come to grips with these, to clarify their meanings to himself, and to reach understanding of them with his counselees, if his counseling is to be smooth and effective. Many of the difficulties met arise from loose usage and unsemantic confusion. Such confusion is common among four of the most widely used terms: *aptitudes, abilities, skills,* and *achievements.* Each refers to patterns of human behavior pertinent to both school and work activities, patterns which have been identified logically, clinically, or experimentally as in greater or lesser degree different from one another. Since all four are related and sometimes appear to overlap, it seems necessary to attempt, first, to make clear the differences in concept and meaning, and, second, to discuss some examples of each most useful in this type of counseling.

Aptitudes are correctly referred to as latent, potential, undeveloped capacities to acquire abilities and skills and to demonstrate achievements. A counselor, studying several cases, may find by tests that each one has an unusually swift and accurate coordination of eye, brain, and hands. This he calls an aptitude for acquiring abilities and skills, and for achievement in a variety of occupations which demand such coordination, but none of the cases has as yet had any instruction or training in any such occupation. In one case, by tests, he identifies another aptitude, that of

being able to distinguish minute differences in the order and arrangement of letters and numbers. He can then predict that, with learning and practice, this student can acquire understanding of clerical work and skills in typing, stenography, and filing, the combination being clerical ability. As training and practice in this field continue, and after the student is employed at a clerical task, he accumulates a series of achievements. He gets better jobs. He wins higher pay. In a second case, similar aptitude for neuromuscular coordination combines with other aptitudes, as yet untapped, in dealing with music. Routing himself into schooling and employment in this field, the counselee acquires the knowledge and skills to demonstrate ability and achieve success as pianist, violinist, or bassoon player. A third student, combining diagnosed aptitudes for eye, brain, hand coordination with an already demonstrated *ability* in scholastic work and *achievement* in biology courses —where he had straight A grades—acquires the abilities and *skills* in medical school to perform highly specialized surgery.

Bingham[1] has clarified the concepts of aptitude and ability and skill. He says:

> "Aptitude" is defined in Warren's *Dictionary* as "a condition or set of characteristics regarded as symptomatic of an individual's ability to acquire with training some (usually specified) knowledge, skill, or set of responses such as the ability to speak a language, to produce music, etc." In referring to a person's aptitude for mathematics, or art, or carpentry, or law, we are looking to the future. His aptitude is, however, a present condition, a pattern of traits, deemed to be indicative of his potentialities.

It must be noted here that people do not possess clear-cut aptitudes, easily identified, and subject to exact measurement although they may be roughly approximated by a highly trained counselor. Most of the aptitudes and abili-

[1] Bingham, Walter Van Dyke. *Aptitudes and Aptitude Testing.* New York: Harper & Brothers, Pp. 16*ff.*

ties which counselors label for convenience in counseling, such as mathematical ability or clerical or artistic aptitudes, must be considered in somewhat the same light that Allport[2] treats common traits. Although the patterns of behavior identified as mechanical aptitude or ability are common in general to all men except those who are paralyzed —we all can walk, run, step, bend, use our muscle systems and our hands—there are unique personalized aspects of the aptitude or ability in range, kind, and degree which are not contained in any general definition or description of mechanical aptitude or ability as a common human trait, as illustrated in the cases of the typist, musician, and surgeon. The mechanical ability of John Doe is never the same as that of Henry Roe even though the similarities appear great.

Bingham[3] is in agreement with Allport when he discusses the theory of aptitude and assumes that it encompasses

1. The intraindividual differences which underlie the relative strengths and weaknesses of an individual when we compare his better with his poorer aptitudes and abilities.
2. The interindividual differences which become apparent when we compare one person with another, or one person with a group of others in terms of selected aptitudes or abilities.
3. The relative stability of these inter- and intraindividual differences. A further corollary of these postulates is the fact that we can estimate, judge, or measure aptitudes and abilities with a fair degree of accuracy.

Aptitudes are, of course, not limited to motor activities but cover all social, educational, and vocational patterns of human activities. They are made up of many dynamic elements, such as application of attention, persistence, and

[2] Allport, Gordon W. *Personality: A Psychological Interpretation.* New York: Henry Holt and Company, Inc., 1937. Pp. 297–303.

[3] Bingham, *op. cit.*, pp. 24–33.

effort and interests, attitudes, and motivations. Counselors are familiar with the educational-vocational problems which confront counselees who may have the aptitudes, abilities, and skills to perform the duties of an occupation but who, for lack of interest or driving motivation, will not study or do sustained work in it at all or except by fits and starts. Attitudes also determine in large measure whether or not students will work to develop aptitudes into abilities and abilities into achievements. For example, his attitudes toward our socio-economic order will inevitably determine whether a counselee's aptitude, say for banking, will be fashioned into a lifelong career in that occupation or instead will block off this development and route him to work with the Communist party. An individual possessed of great potentialities may fail to realize promise in any of them if an appropriate level of motivation is not present. These interest-attitude-motivation aspects of aptitude will be more fully treated in a later chapter. We call attention to them at this point to avoid giving the impression that aptitudes and abilities are concerned only with mental organization and motor skills.

Again we quote Bingham.[4]

> The meaning of "ability" which occurs in the definition of aptitude, itself calls for comment. *Ability* means power to perform responsive acts. These acts may be complex coordinated movements, solutions of intellectual problems, discriminating judgments of appreciation, or other sorts of behavior—as, for instance, the maintenance of coolness and self-restraint under conditions of provocation or emergency. The amount of a person's ability in a given direction is ordinarily expressed in terms of difficulty or complexity of the tasks he can perform, the number he can perform at specified levels of difficulty, or the speed and precision of his performance.

The counselor's problem in estimating, judging, and measuring aptitudes and abilities demands both quantita-

[4] Bingham, *op. cit.*, p. 19.

tive and qualitative analysis. He is under the necessity of both utilizing the terms of subjective evaluation, such as *good, poor, bright,* or *dull,* and employing quantitative statistical labels, such as standard scores, percentiles, means, or medians. The combination of experimental and clinical evidence is essential to sound judgment. Many of the counselor's tools, discussed in Chaps. 4 and 5, are thus adapted to aid in the making of judgments of quantity and quality of aptitudes, abilities, skills, and achievements.

Common Aptitudes and Abilities

In counseling, as in other clinical fields, it is necessary to categorize items and subitems of information about jobs and workers, schools and students, for purposes of clarity and systematic treatment. This is particularly true when we deal with such complexities as aptitudes and abilities. It is probable that each of the more than 40,000 named occupations in the United States has certain major or minor characteristics that mark it off from all others. Since it is quite impossible for any counselor to comprehend this vast multitude of detailed differences, the concept of job families has been developed to group occupations which are closely related in terms of the aptitudes and abilities necessary for their successful performance. Only by this process does this mass of material yield itself to understanding and practical application. Upon analysis, it is found that these job families can be described in relation to occupational aptitude, ability, skill, and interest patterns. These patterns are then labeled in order to permit general identification and manipulation of the concepts.[5] Table 1 presents

[5] The reader who wishes to study the developmental history of occupational ability patterns is referred to the following sources:

Cisney, H. N. *Classification of Occupations in Terms of Social Intelligence, Artistic Ability, and Musical Talent.* M. A. thesis on file in the University of Minnesota Library, 1935.

Fryer, Douglas. "Occupational intelligence standards," *School and*

four tentative systematic approaches to occupational aptitude and ability patterns found useful in counseling. The reader will note that the trait or occupational area names and their definitions and descriptions are exceedingly broad. If the relatively different labels are combined from these several classifications, we may obtain some such outline as the following:

1. Academic, scholastic, or verbal. This is defined and described, usually unsatisfactorily, in terms of "general" intelligence. While it may be administratively useful in colleges and high schools to assume a "general" intelligence—an aptitude that will permit or not permit a given student

Society, 1922, 16:273–277.

Fryer, D., and Sparling, E. J. "Intelligence and occupational adjustment," *Occupations,* 1934, 12:55–63.

Goodenough, F. L., and Anderson, J. E. *Experimental Child Study.* New York: Appleton-Century-Crofts, Inc., 1931. Pp. 501–512.

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Taussig, W. F. *Principles of Economics.* New York: The Macmillan Company, 1912. Vol. II, pp. 134–148.

Terman, L. M. *Genetic Studies of Genius.* Stanford University, Calif.: Stanford University Press, 1925. Vol. I, pp. 66–69.

Trabue, M. R. "Functional classification of occupations," *Occupations,* 1936, 15:127–131.

Yerkes, Robert M. "Psychological Examining in the United States Army," *Memoirs of the National Academy of Sciences,* Vol. XV. Washington, D.C.: Government Printing Office, 1921. Part III, Chap. 15, pp. 819–837.

to do all of the required work at a passing level or better —such an assumption is not so useful to the counselor who must inquire as to what more specific academic abilities, such as mathematical, literary, scientific, etc., his counselee possesses or does not possess. Hence, several of those following are frequently included under this too broad category.

2. *Numerical and mathematical.* The mental manipulation of numbers, of algebraic, geometric, and trigonometric symbols and relations of cause and effect treated through numerical concepts.

3. *Spatial.* Problem solving involves both two-dimensional designs on a flat plane and actual objects in three-dimensional space, and the geometric forms which represent such objects, as in engineering, the plastic and graphic arts, pattern making, etc.

4. *Scientific.* The application of inductive and deductive reasoning to facts, principles, laws, and constructs, to relationships, and to the systematic objective verification of hypotheses.

5. *Mechanical.* The manipulation of objects to achieve desired practical results and, at the professional level, the manipulation of the symbols representing the objects, their relationship, and their movement in time-space as in engineering, surgery, piloting ships or airplanes, etc.

6. *Manual skills.* The eye-hand-tool, eye-hand, and more gross wrist-hand, forearm-wrist-hand, and general bodily coordinations which permit finely coordinated acts in manipulating objects of the physical world. Employed in a wide range of occupations from carpentry to surgery, from knitting to playing piano or violin, from driving a car to flying a supersonic plane.

7. *Physical agility.* The general coordination of bodily movement, or of different neuromuscular systems, including the fine and the gross, which make some individuals better performers in certain occupations requiring such coordinations than in others. It is to be noted, however, that few

TABLE 1. CLASSIFICATIONS OF HUMAN APTITUDES AND ABILITIES*

Kelly† *Aptitude or ability and description*	Williamson‡ *Aptitude or ability and description*	*Occupational outlets*
Verbal—Ability to define, understand, and use words as symbols of meaning and experiences.	Verbal and linguistic—Fluency in use of one's own language and facility in learning other languages. Perception of verbal relations.	Author, lawyer, professor, minister, editor, advertising copywriter, etc.
Numerical—Ability to manipulate (mentally) numbers as symbols of experience or meaning; to solve problems which involve numbers.	Mathematical—Facility with abstract symbols (and relations of cause and effect). Perception of complex number relations.	Mathematics teacher, accountant, statistician, engineer, comptroller, etc.
Spatial—Ability to think or solve problems (mentally) involving objects and the geometrical forms which represent actual objects in space.	Constructive and mechanical—Perception of spatial relations, facility in designing, calculating, working with machinery, etc.	Engineer, architect, inventor, toolmaker, printer, etc.
Memory for detail Drill—Routine memorizing or learning. Physical agility—Ability to coordinate large and small muscles; to manipulate objects with speed and precision.	Manual skills—Dexterity in using tools, skill with hands and fingers, precision in coordinating movements.	Surgeon, dentist, sculptor, artist, skilled mechanic, special skilled trades, etc.
Musical—Ability to understand musical forms and to perform on a musical instrument.	Artistic (inc. musical)—Appreciation of form and color, facility in crafts and in imaginative interpretations.	Artist, sculptor, architect, designer, composer, actor, dancer, etc.
Artistic—Ability to understand form, balance, color harmony, and their use in artistic creation and interpretation.	Social—Sociability, cooperativeness, tact, personal pleasingness, helpfulness.	Politician, teacher, personnel or social welfare worker, salesman, etc.
Social—Ability to work with people without friction; leadership.	Scientific—Facility in defining, classifying, grasping principles, inductive reasoning, perceiving relation of rule to example.	Research worker, physician, physicist, chemist, geologist, psychologist, etc.
	Clerical and commercial—Accuracy and speed in handling numbers, names, systems, and details.	Bookkeeper, credit man, purchasing agent, cashier, clerk.
	Executive—Initiative, self-reliance, ambition, leadership, etc.	Director, manager, foreman, inspector, etc.
	Practical—Efficiency in practical affairs, calmness under pressure, persistence, courage.	Airplane pilot, sea captain, army officer, surgeon, etc.

† Kelly, T. L. *Interpretation of Educational Measurements.* Yonkers, New York: World Book Company, 1927. Pp. 124–125.

‡ Williamson, E. G. *Students and Occupations.* New York: Henry Holt and Company, Inc., 1937. Pp. 31–33.

* Compiled by Milton E. Hahn, Director, Psychological Services Center, Syracuse University, July, 1946.

TABLE 1. (*Continued*)

Paterson-Gerken-Hahn§

Aptitude or ability and description	*Levels*	*Occupational outlets*
Academic—The ability to understand and manage ideas and symbols.	Professional, semi-professional, and executive occupations	Lawyers, college presidents, president of a large manufacturing concern, teachers at all levels.
	Technical, clerical, supervisory	Minor executive, or highly technical work, railroad clerks, shop foremen, stenographers.
	Skilled tradesmen, low-grade clerical	Auto mechanic, stationary engineer, typist.
Mechanical—Includes both the ability to manipulate concrete objects—to work with tools and machinery and the materials of the physical world—and the ability to deal mentally with mechanical movements.	Professional and higher technological	Inventive mechanical genius, mechanical engineer, toolmaker.
	Skilled tradesman, high level	Draftsman, engraver, general automobile mechanic, bricklayer.
	Skilled tradesman, low level	Boiler maker, tire repairer, cobbler.
	Semi- and unskilled tradesmen	Wrapper, bench assembly worker.
Artistic—Refers both to the capacity to create forms of artistic merit and the capacity to recognize the comparative merits of forms already created.	Professional	Sculptor, artist, etcher, university art teacher.
	Commercial	Magazine illustrator, interior decorator, landscape gardner.
	Crafts and mechanical	Potter, draftsman, weaver.
Social—The ability to understand and manage people—to act wisely in human relations.	Persuasive—direct or indirect	Politician, life insurance salesman, minister, social service worker.
	Administrative	Executives, foreman, lawyer, physician.
	Business contact and service	Sales clerk, information clerk, hotel clerk, telephone salesman.
Clerical—The ability to do rapidly and accurately detail work such as checking, measuring, classifying, computing, recording, proofreading, and similar activities.	Professional and higher technical	Accountant, actuary, statistician, secretary, bank teller.
	Technical	Bookkeeper, stenographer, calculating machine operator, railway mail clerk.
	Routine	File clerk, mimeograph operator, retail sales clerk, messenger.
Musical—The capacity to sense sounds, to image these sounds in reproductive and creative imagination, to be aroused by them emotionally, to be capable of sustained thinking, to give some form of musical expression.	Creative, interpretive, higher professional	Composer, concert artist, symphony soloist, teacher in university.
	Technical, lower professional	Arranger of music, critic, player in dance orchestra.
	General and mechanical	Instrument repairman, music store clerk, factory instrument tester.

TABLE 1. (*Continued*)
Dictionary of Occupational Titles‖

Classification of work¶	*Occupational outlets*
0. Professional and managerial occupations	0–0
	0–3 professional
	0–4
	0–6 semiprofessional
	0–7
	0–9 managerial and official
1. Clerical and sales occupations	1–0 clerical and kindred
	1–4
	1–5 sales and kindred
	1–9
2. Service occupations	2–0 domestic service
	2–2 personal service
	2–5
	2–6 protective service
	2–8 building service and porters
	2–9
3. Agricultural, fishery, forestry, and kindred	3–0 agricultural, horticultural, and kindred
	3–4
	3–8 fishery occupations
	3–9 forestry (except logging) hunting, trapping
4. Skilled occupations	
5.	
6. Semiskilled occupations	
7.	
8. Unskilled occupations	
9.	

§ Paterson, Donald G., Gerken, Clayton d'A, and Hahn, Milton E. *The Minnesota Occupational Rating Scales*. Chicago: Science Research Associates, 1941, Pp. 20–26.

‖ *Dictionary of Occupational Titles, Part II*, U.S. Dept. Labor & U.S. Employment Service, Washington, D.C.: U.S. Government Printing Office, 1939, pp. ix*ff*.

¶ The "Classification of work," the *Dictionary of Occupational Titles*, is a compromise between the U.S. Census classifications and human ability classifications.

have this agility as an over-all pattern at high level; *e.g.*, specialization in passing, kicking, tackling, running, and blocking is increasingly evident in modern football.

8. Artistic. The appreciation, interpretation, creation, and analysis of forms having artistic merit. Again, this is a far too general category for application to sound educational-vocational counseling. A student may have high aptitude or ability in appreciation but be lacking these in interpretation, creation, and critical analysis. Another may be able to create a painting but be a poor art critic, etc. Moreover, one may have great talent in sculpture but little in painting or architecture.

9. Musical. The appreciation, interpretation, creation, or analysis of musical sounds. What has been said concerning the graphic, plastic, and architectural arts as to the multiplicity and complexity of individual talents applies equally here.

10. Social. The social effectiveness of the individual in his cultural setting, how he manages to get along with people, teachers, and fellow students in school and college, coworkers and bosses on the job, members of his family, his friends, and persons in the organizations to which he belongs.

11. Clerical. The effectiveness of the individual in dealing rapidly and accurately with clerical details at various levels.

12. Executive. Initiative, self-reliance, and leadership in producing results from activities of self and others.

13. Practical. "Horse-sense" efficiency in practical affairs under various conditions of social and physical pressure. This complex concerns not only the making and management of money, but effective dealing with things and people for profit or prestige or both.

Inspection of the above list of some "aptitudes" and "abilities" indicates immediately that there is overlapping and that the categories are extremely broad. Nevertheless, if a systematic and meaningful approach is to be made to

educational-vocational problems of individuals, such tools and techniques, however dull and gross they may be, must be used. It is also evident that we can continue to make logical categories of combinations of human abilities into finer units almost indefinitely. Oakley, Macrae, and Mercer,[6] for example, deal with twenty-four human abilities and other qualities. Raymond Ward[7] also concerns himself with a large number of variables related to occupational placement. The OSS Assessment Staff[8] advise a somewhat different approach and terminology. They say in part:

> There is some advantage, we believe, in correlating the term "intelligence" with the effectiveness of any system of mental functions and in designating the nature or purpose of each distinguishable system by an appropriate objective, such as aesthetic intelligence, social intelligence, scientific intelligence, administrative intelligence, mechanical intelligence and so forth; and then designating by a suitable term each separable function (mental ability) that is involved in the operation of each system, such as, observational ability, evaluative ability, interpretive ability, conceptual ability, imaginative ability, logical ability, predictive ability, planning ability, manipulative ability and so forth.

Counselors whose chief concern is with general educational-vocational problems of students in educational institutions may not usually have to work with so many categories as any of these indicate. The authors recommend, however, that each counselor continually study the various methods of classification and adapt or create for his own whichever seem most logical and useful to him.

To the clinical counselor in business and industry, where solutions of a large number of placement problems are continually demanded and where the offices and plant are directly under his eye, job analysis into fine ability com-

[6] Oakley, *op. cit.*, pp. 130–137.

[7] Ward, Raymond S. in Stead, *et. al. op. cit.*, Chap. X, pp. 175–206.

[8] OSS Assessment Staff. *Assessment of Men.* New York: Rinehart & Company, Inc., 1948. Pp. 264*ff.*

ponents of great number and into composites is important and, frequently, a necessity. The classification of job families by patterns of broad ability categories is essential in many situations in education and business and industry. Because this book is but incidentally concerned with counseling in business and industry, we confine ourselves primarily to classifications most pertinent to talents and activities in school and college and to selecting a career.

Although the general clinical counselor cannot deal with all meaningful variables suggested above, he is forced into the attempt arbitrarily to select those which are practicable and which promise the most effective assistance to his counselees. Of the above list of human abilities which can be combined to yield an occupational profile for individuals, seven discussed on the following pages are selected by the authors as minimal for counseling with those having problems involving educational-vocational choices. These abilities are *academic, mechanical, social, clerical, musical,* and *artistic.* By patterning the qualitative and quantitative degrees of these abilities, general analyses of individuals are possible for comparison with job patterns similarly derived. Several of the ability categories omitted from our previous list—*numerical and mathematical, spatial, manual skills*—are here distributed and embedded among academic, scientific, and mechanical abilities. Thurstone's[9] investigation of primary mental abilities is the major justification for this treatment. Manual skills are assigned to physical agility and coordination and to mechanical ability. Executive and practical abilities, while important, are so generalized that they can be assigned broadly to social and academic ability. The counselor will, however, find these discarded categories useful and perhaps superior to those

[9] Thurstone, L. L. *Primary Mental Abilities.* Chicago: University of Chicago Press, 1938. Psychometric Society, *Psychometric Monographs* No. 1.

NOTE: Thurstone posits *a group factor* explanation of mental organization. The rubrics which he uses to describe the primary mental abilities are *perception, number, verbal, space, memory, induction,* and *reasoning.*

selected in special instances in his day-by-day counseling. Before turning to more detailed consideration of the six selected aptitudes and abilities, attention is directed to another important consideration in dealing with human occupational ability patterns, that of *field-level* concepts.

Field and Level Concepts in Interpreting Occupational Ability Patterns

One of the great difficulties which the counselor dealing with educational-vocational problems faces is that of counselee choices seriously wrong because they are based upon occupational labels. Some, such as "medicine" or "business," are so broad as to cover many quite different tasks, demanding quite different abilities and personalities. Others are such specific job labels as to be far too narrow and restrictive for long-term goals. Moreover, their meaning is not always uniform from one geographical area to another, and often the label remains constant while its meaning changes because technological developments result in a new, and often quite foreign, constellation of job duties. Williamson[10] refers to the fallacy of occupational labels as follows:

The fallacy of occupational labels may best be explained by means of an illustration. A young man may be attracted to "manufacturing" without having any clear notion of the enormous variety of jobs within that larger field. "Manufacturing" may, and usually does, require the services of chemists, engineers, salesmen, clerks, statisticians, lawyers, personnel workers, advertising workers, bankers, janitors, elevator operators, and so on endlessly. Obviously, "manufacturing" as a vocational choice is too broad and indefinite. In a somewhat similar way, a young man, fascinated by the front-page exploits of "G" men, discovers that they are engaged in activities quite unlike those he has read about. It will be seen that this error of choosing a vocation resembles the fallacies which we have designated as

[10] Williamson, E. G. *Students and Occupations.* New York: Henry Holt and Company, Inc., 1937. P. 18.

"the glorification of the unusual" and "the attractiveness of the remote."

Darley[11] throws the problem of job label choices into bold relief when he says:

But with these guides in mind, the counselor is in a position to help the student choose the family, *or families*, of occupations in which he has the greatest chances of successful competition. Remember that a student may have the characteristic of more than one family of occupations.

The use of the concept has two strong advantages in vocational counseling. First, it is basically a much sounder and more functional approach to vocational problems than worrying about specific occupational labels selected by the student. Within the family of occupations that seems appropriate, several specific and alternative jobs can be found for the student to consider. In the second place, vocational guidance can begin in the earlier school years, since some of the broad human characteristics of ability, aptitude, or interest can be spotted by tests and other devices even in the junior high-school age range. As a corollary to this advantage, it is possible to relate the claimed occupational choices which the student makes at various stages to families of occupations. From the group guidance standpoint, the occupations class might study families of occupations and the counselor might help direct that study to the families which his individual diagnosis indicates are appropriate for each child.

Fredenburgh[12] strikes the same key but with a more pessimistic note when he states that

Efforts to set up objective standards through *individual analysis and diagnosis* and to develop further and to use *occupational ability patterns* have struck staggering limitations, not the least of which fall in the lap of school and college administration. The former method has shown considerable promise at the upper levels of collegiate education where clinical counseling

[11] Darley, John G., *Testing and Counseling in the High-school Guidance Program.* Chicago: Science Research Associates, 1943. Pp. 150–151.

[12] Fredenburgh, F. A. "The Gordian knot of vocational guidance," *Journal of Applied Psychology,* 1944, 1:53–66.

services and a fairly extensive "training history" facilitate the disposition of individual cases. Such an approach, however, has not proved to be administratively and financially possible at the lower levels of school leaving where ninety per cent of our school population is found. Yet it is at this level where professional services are most urgently needed. (Page 57.)

The problem of occupational adjustment is, therefore, wisely approached from the standpoint of broad categories of related occupations. The concept of "families" of occupations, of "classes" suggests the approach. These *classes* of occupations should be characterized by a common, identifiable, basic combination of factors which may be associated with, if not directly related to, demonstrated academic ability, measured aptitudes, expressed or inferred interests, hobbies, and leisure time activities, in so far as these may be assessed. (Pages 62–63.)*

When we attempt to deal with job families and occupational ability patterns, we face the field-level interpretation of our data. Hahn and Brayfield[13] have described these concepts as follows:

The term "occupational field," as used here, means a broad area of occupations which are related to each other with reference to the abilities, aptitudes, and vocational interest patterns necessary for success. The term "level" may be defined as the general ability or aptitude of an individual to meet complex situations and to master abstract ideas and concepts.

"Field" indicates the *direction* in which an individual should go; "level" indicates *how far* he is likely to progress.

* Mr. Fredenburgh's article was written before the advisement program of the United States Veterans Administration in cooperation with educational institutions was in operation. The influence of this program has permeated outward from the colleges and universities into the secondary school. In the short time since 1944 enormous strides have been made in making individual analysis and diagnosis available to hundreds of thousands of citizens from all walks and all levels of life. Materials being published from the files of the armed forces guidance centers are advancing our knowledge of occupational ability patterns far beyond our 1944 dreams.

[13] Hahn, Milton E., and Brayfield, Arthur H. *Occupational Laboratory Manual.* Chicago: Science Research Associates, 1945. Pp. 23–24.

The concept of level came into relatively clear focus with the publication of results from the use of the Army Alpha[14] tests used in World War I. Even though there were large amounts of overlap in the test score ranges for the occupations listed, a definite hierarchy emerged.*

If measured academic ability, or scholastic intelligence, is considered the determiner of level, the counselor must make some arbitrary decisions for purposes of general interpretation. The literature will supply the counselor with a number of such divisions by level. Even though this approach is arbitrary and somewhat artificial because of its basis on a single variable, the concept is useful as a starting point from which to consider an individual counselee. In the article by Fryer and Sparling quoted above, the levels are given as follows:

Intelligence groups (I.Q.)	*General*	*Educational*
M.A. 18 or above I.Q. 120+	Intelligence for creative and directive effort	Ability for honor record in university
M.A. 16.5 to 17.9 I.Q. 110+	Lower grade professional level	Ability for average college record
M.A. 15.0 to 16.4 I.Q. 100+	Clerical and technical occupational level	Ability for high school graduation and some college training
M.A. 13.0 to 14.9 I.Q. 90+	Skilled occupational level	Ability for high school graduation and some college training
M.A. 11.0 to 12.9 I.Q. 80+	Semiskilled and low skilled occupational level	Ability rarely sufficient for high school graduation
M.A. 9.5 to 10.9 I.Q. 70+	Unskilled occupational level	Usually drops out by fifth grade

[14] Bingham, *op. cit.*, pp. 46–47. The reader will find an interesting adaptation of this hierarchy of occupations in terms of level (academic ability) in Fryer and Sparling, *op. cit.*, pp. 56–57.

* It is of interest historically to recall one of the early classifications which used the hierarchy of intelligence as a case for defining level. F. W. Taussig's *Principles of Economics* (already cited), pp. 134–137, presents such an approach.

A second approach along the same line is made by Paterson, Gerken, and Hahn.[15] These writers make arbitrary assignment of the percentage of the population assumed to possess sufficient academic ability to be successful at the various formal educational levels assuming opportunity is present. Their divisions are

Highest 10%..... Superior abstract intelligence with training *equivalent* to college graduation from a first-class institution or two or three years of college, or to that of executive of a moderately large business. Ability for creative and directive work is implied.

Next 15%..... High average abstract intelligence with training *equivalent* to high school graduation and/or technical school or junior college.

Middle 50%..... Average abstract intelligence with training *equivalent* to vocational high school. Work demanding specialized skill and knowledge; tasks mostly of a concrete nature requiring specialized training.

Lowest 25%..... Low average or slightly below average abstract intelligence with training *equivalent* to eighth grade or less. Work demanding a minimum of technical knowledge or skill but may involve special abilities, such as dexterity in the performance of repetitive and routine work.

It seems probable that these percentages have already shifted and will shift still more under the impact of the GI Bill of Rights, which has enormously extended the opportunities for high school and college education. In fact, in the judgment of one authority who refuses to permit quotation, but who has spent years in the measurement of academic ability, these shifts had already begun before World War II. He asserts further that the assignment of levels of ability by performance in high school and colleges in general have little meaning because of the very large variation in institutions. Thus, while a pupil with an I.Q. of 90 may graduate (perhaps with honors) from one high school, he would fail miserably in another. Thus also it

[15] Paterson, Gerken, and Hahn, *op. cit.*, pp. 21–22.

might take the college age equivalent of an I.Q. of 125 + to achieve a master's degree in one university and an I.Q. of 100 + in another. His assumption appears to be substantiated by the Carnegie Pennsylvania and other studies. For so-called "first-class" institutions this authority finds the following mean I.Q. equivalents are necessary: high school graduation, 110; liberal arts college freshmen, 120; B.A. or B.S. graduation, 125; M.A. or M.S., 130; Ph.D., 135 +. For educational-vocational counselors, this recognition of the great variability in institutions has much more meaning than has yet been adequately recognized. Only by full knowledge of the requirements in terms of scholastic ability of the institution in which he works, frequently differentiated also by colleges, departments, and individual instructors, can he effectively counsel students. Only by knowing the "standards" of other institutions can he recommend transfer in individual cases where a change to one of "lower standards" might result in successful achievement for his counselee, or, in a different case, a shift to one of "higher standards" might put him on his mettle and be more satisfying.

The divisions of level used by Otis[16] are also well known and widely used.. His groupings are *"very superior, superior, high normal, low normal,* and *dull."* The threshold beginnings of these arbitrary divisions in terms of I.Q. are, respectively, 120, 110, 100, and 90. Most authorities tend to use these broad bands of academic ability to yield a rough identification of the approximate level at which an individual can hope to compete on a ladder of jobs running from manual labor to research in nuclear physics.

Because occupational level in many fields is, in general, closely related to level of academic ability, certain specific points will be discussed under that heading in the next chapter. The counselor should keep in mind, however, certain fundamentals when dealing with the level concept as related to educational-vocational problems. These are

[16] Otis, Arthur S. *Manual for the Otis Self-administering Test of Mental Ability.* Yonkers, New York: World Book Company, 1922.

1. *Level* is always in terms of broad bands, often overlapping, never in terms of a fixed point.

2. *Level* is seldom, if ever, determined from a single criterion such as a test score. Even these broad approximations should be based on all available pertinent data: test scores, academic grades, vocabulary level, physical health, emotional adjustment, and social behavior.

3. *Level* is meaningful only when in a known frame of reference. It is modified by interests, motivation, environmental and other considerations.

4. *Level* must be considered as an index of both aptitude and ability—the short- and long-time future projected from the past and present.

Field

Field can be further described as the educational-vocational area in which an individual may have a comparative advantage in vocational competition. In instances where an individual has an advantage over a considerable number of others in one or more abilities (*i.e.*, is significantly above average compared to a known occupational group), counselors help to make one type of decision. In instances where the individual is below average in all abilities, when compared to an occupational group with which he must compete, another type of decision is indicated. Figure 3 illustrates this problem.

It is important to note that fields are usually named to coincide with aptitudes and abilities. We tend to speak in counseling of a scientific field, a mechanical field, or the field of art. Often we combine ability areas to form fields. Examples of this are the scientific-mechanical field at the professional or semiprofessional level or the scientific-mechanical-social field at the technical level. The first pattern includes a number of occupational labels such as "physicist" and certain types of engineers.

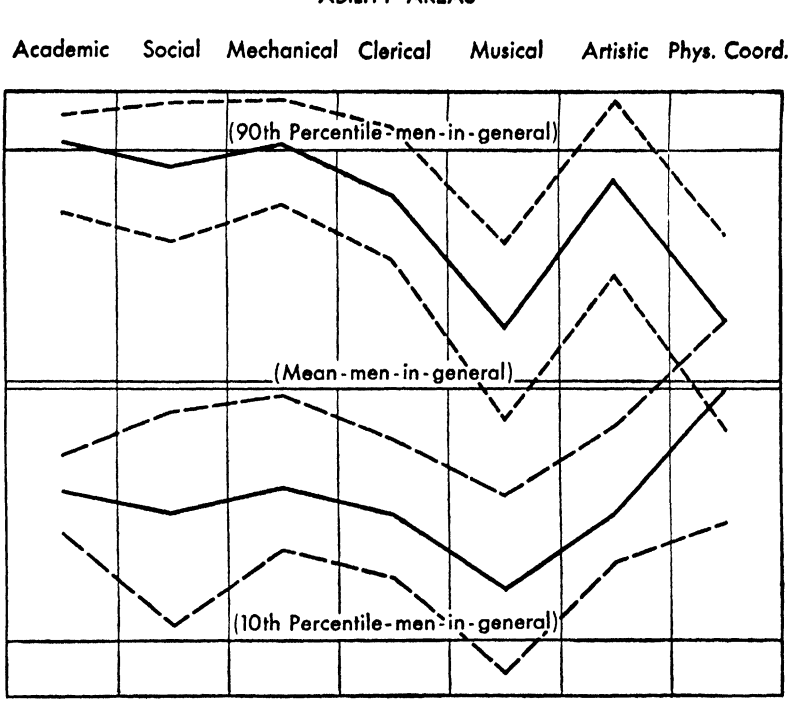


FIG. 3. Two ability patterns illustrating the field-level concept. The two patterns are of similar shape, excepting the area of physical coordination. The upper pattern illustrates an individual with advantages over most men-in-general in the majority of ability areas. The lower pattern is that of an individual at a disadvantage competing with men-in-general.

Pattern I can be described as suitable for occupations in a scientific-mechanical-clerical-artistic field, at the professional or higher technical level.

Pattern II can be described as suitable for occupations in a mechanical field at the skilled to semiskilled level.

Note that the patterns are drawn as areas of varying width for each ability. This type of presentation illustrates the errors of estimation and measurement. The narrower the band for an ability, the more certain we are of the tools and techniques from which our estimate was derived. The broader the band, the less certain we are of the approximation.

The reader is referred to pages 164*ff*, in Chap. 5, where occupational information is discussed as a tool of the counselor. The references on page 186 of this chapter will also be helpful. Interesting materials will be found in the man-

ual of the Kuder Preference Record[17] and in the Minnesota Occupational Rating Scales.[18] Crude and undefinitive as this approach may seem, it is thus far our most effective one when we attempt to aid individuals in their long-range planning. In an industrial situation it is possible to use selective techniques to consider the appropriateness of jobs A-B-C for applicant I-II-III. In general counseling, with long-range plans involved, our predictions are safest when we make best use of the *field-level* concepts.

[17] Kuder, Frederick. *Manual for the Kuder Preference Record.* Chicago: Science Research Associates, 1946.

[18] Paterson, Gerken, and Hahn, *op. cit.*

Chapter 7. APTITUDES AND ABILITIES (*Continued*)

A basic principle of dealing with human problems in a clinical situation is always to consider as fully as possible the whole individual. Nevertheless, we are handicapped by two facts: (1) that it is quite impossible for any counselor to know all about any living, dynamic human organism, and (2) that it is very difficult to comprehend and express more than one aspect of the counselee at a time through the use of words. In recognition of these handicaps, the materials in this chapter attempt to treat with the whole individual but as if he is reacting in general ways which can be conveniently labeled to facilitate explanation of the way in which the counselor studies him. At the same time, it must be clearly understood that these labels do not carry any implication that the authors believe a person can be viewed and comprehended by isolated segments of personality. Such labelings of patterns are merely pegs upon which some of the clothing of the systematic case study can be hung.

A third difficulty in presenting this theory of ability patterns is that much of the material still is in part speculative and controversial and not founded on rigorous scientific research. We cannot demonstrate, analyze, and describe single, relatively unique abilities such as those possessed by a professional highly paid coffee taster, or even commonly identifiable patterns of behavior which deserve a seemingly clear-cut name such as "social intelligence" or "creative ability." This situation is not peculiar to counseling alone. All clinical workers find themselves constantly faced by this problem. The social worker must use descriptive labels and

take action which has only clinical (nonexperimental) bases. The physician, despite the long strides which have been made by medical researchers, spends much of his time practicing on the basis of clinical experience. In psychiatry and psychoanalysis especially there is an increasing struggle to clarify the concepts of syndromes and the patterns of abnormal behavior by experimental methods. In counseling, therefore, as in these other older fields, we employ demonstrable research findings where we can and elsewhere use the most logical and clinically effective and understandable terminology available in our exchange of data and ideas.

In doing so, the authors are aware, as the reader must be, of the ever-present danger of complete acceptance of the named abilities, discussed in this chapter, as discrete or unique. The soundest way to consider this point is to regard all of the aptitudes and abilities to which we attach counseling labels as logically and psychologically derived specialized aspects of dynamic personality organization. Our experimental pioneers—Terman, Thurstone, Kelly, Paterson, Allport, Spearman, Pearson, and Thomson, to name only a few—have blazed trails which appear generally reasonable and which help us in our clinical counseling. Certain aspects of these named traits, when subjected to statistical treatment, appear to be "relatively unique." They also frequently seem to be related with each other to some extent in terms of the intercorrelations discovered among and between them when tests purporting to measure aspects of them are used and the results are treated statistically.

The authors are aware that most of the statements about aptitudes and abilities which follow are subject to many modifications and qualifications. To state all of these qualifications, however, would lengthen the chapter far beyond practical limitations and lead only to confusion. There is a strong temptation, too, to write the history of the development of each of the concepts presented. Such a presentation is needed and would be well worth while, but it is properly the material for another book with a different purpose.

Documentation of certain statements will supply the interested reader with starting points for investigating the historical backgrounds of explanations of relatively unique aptitudes and abilities. With these comments and warnings, we now turn to consideration of selected human aptitudes and abilities and treat them with only a minimum of essential specific qualifications.

The aptitudes and abilities with which we are concerned here are *academic, mechanical, social, clerical, musical,* and *artistic.* For each category a definitional description is made, the levels of the ability are presented, and the methods of making judgments and expressing them are considered. Some occupational examples are provided for purposes of clarification.

Aptitudes and Academic Ability

Academic ability, as we use the term here, is not a synonym for intelligence as if the only *intelligence* was the power to get along in school and with books in a world of words. Instead, *intelligence,* as defined in Warren's *Psychological Dictionary,* is a broad concept concerned with the total organism's adaptive responses to novel situations or problems. *Academic ability* refers to the effectiveness and suitability of response to situations usually arising in a formal educational environment or equivalent learning situations in nonacademic life. This is a usable distinction to which the authors resort for the sake of logic, clarity, and convenience. Bingham[1] makes this differentiation nicely in regard to soldiering:

> Instead, the question is: How intelligent is he now? What can he learn and how fast can he learn it?
>
> Neither is it a matter of practical concern to know what a soldier's *native* intelligence was at birth, before his mental

[1] Bingham, Walter V. "Inequalities in adult capacity—from military data," *Science,* 1946, 104:147.

development had been facilitated in any degree by stimulating surroundings or hampered by a stultifying environment. The assignment officer wants an index of what the new soldier can be expected to learn, rather than a figure which purports to tell what he might have been able to learn if only he had had a better home, no enfeebling illness and a great deal more education.

Because counselors find much of their effective work with age groups quite comparable to certain of those faced by the assignment officer, the parallel is apt. Students in senior high schools and colleges are beyond the age when the measured I.Q. is particularly meaningful. The counselor's problem is the prediction of the learning level at which the counselee is likely to reach his ceiling, either in academic situations or in their nonacademic equivalent. With children under fifteen or sixteen years of age, the I.Q. can be used properly only as a general ratio encompassing the total rate of mental development in an omnibus manner. The high school and college counselors' question must be: How well will John learn specified types of materials such as mathematics, English, psychology, and history in the formal educational environment in this institution and in that occupational setting, in comparison with a given group norm or point of reference such as this present student body or that particular group of employees?

The materials with which the subject is asked to work, when measurement of academic ability is attempted, give us a clue to definition. Bingham, in the reference cited above, takes his data from a test based upon verbal, arithmetical, and spatial tasks. Thurstone and Thurstone[2] use a number series, arithmetic, and figure analogies for the quantitative part of their test, and completion, same-opposite, and verbal analogies to yield a score for the linguistic section of the instrument. Toops' Ohio State University

[2] Thurstone, L. L., and Thurstone, Thelma Gwinn. *American Council on Education Psychological Examination* (college ed.). Washington, D.C.: American Council on Education, 1924–1944.

Psychological Test, Form 22,[3] includes three subtests—same-opposites, analogies, and paragraph comprehension. The basis for predicting success in formal education, therefore, with some exceptions, tends to be largely verbal. The Pressey Senior Classification and Senior Verifying Tests[4] have been widely used with students in secondary schools and with unselected adults, particularly in business and industrial situations. These tests include subtests concerning opposites, recognition vocabulary, concept recognition, practical arithmetic, number and letter series completion, practical judgment, and information.

Levels of Academic Ability

The matter of level has been partially discussed in the preceding chapter. At this point we introduce an important aspect of the concept of level without reproducing all of the materials already presented. The use of the Army General Classification Test with 10,000,000 men has given us the best cross section we have ever had of the academic or learning ability of the adult American male. Comparable data from this test when administered to women are not yet available. However, personal experience with the results of this test used with approximately 18,000 women in the United States Marine Corps indicates that the raw score distributions for women are very similar to those for men.

In Bingham's reference above, five levels of academic ability are presented.

Army Grade I, scores above 120

Army Grade II, scores from 110 through 119

Army Grade III, scores from 90 through 109

Army Grade IV, scores from 70 through 89

Army Grade V, scores below 70

($\sigma = 20$; $M = 100$)

[3] Toops, Herbert A. *Ohio State University Psychological Test*, Form 22. Columbus, Ohio: The Ohio State University Press, 1937.

[4] Pressey, S. L., and Pressey, L. C. *Senior Classification and Senior Verifying Tests.* Bloomington, Ill.: Public School Publishing Company, 1922.

In terms of academic ability, Bingham believes that those in Grade I are good risks for college training. Because 184,000 (6 per cent) of the 2,764,000 men in the Army Grade II group had completed college, it is obvious that an appreciable number of men in this grade are of college caliber. This is especially clear when the wide variations in college "standards" are considered.[5] In general, men in this group made sound officer material. The men in Grade III "furnished a substantial number of corporals, sergeants, clerks, and technicians and a great many capable privates." Although there is overlapping, Grades IV and V showed a steadily decreasing amount of ability to learn the mathematics, English, etc., essential to the various levels of soldiering. The findings thus give a clearer, but similar, picture than that of the Army Alpha Test results in World War I.

For practical purposes of dealing with academic ability as a measure of peacetime occupational level, the counselor will find the following table useful although not experimentally verified. It is, of course, subject to numerous qualifications in its interpretation.

TABLE 2. LEVELS OF ACADEMIC ABILITY AND EDUCATIONAL-VOCATIONAL OUTLETS

*Level of academic ability**	*Army General Classification test equivalent (estimated)*†	*Educational and vocational outlets*‡
Professional, semiprofessional, and executive occupations (highest 20% of men-in-general)	Grades I, II. Standard scores of 115 and above	College graduation or its equivalent. Creative and directive work. Examples Engineer, physician, lawyer, business executive (large firm), college and high school teachers, dentists, landscape architects, etc.

[5] Strang, Ruth. *Educational Guidance: Its Principles and Practice.* New York: The Macmillan Company, 1947. Appendix D, pp. 243–254.

TABLE 2. LEVELS OF ACADEMIC ABILITY AND EDUCATIONAL-VOCATIONAL OUTLETS. (*Continued*)

*Level of academic ability**	*Army General Classification test equivalent (estimated)*†	*Educational and vocational outlets*‡
Technical, clerical, supervisory occupations (from the 50th–80th percentile of men-in-general)	Grades II, III. Standard scores from 100 through 114	Junior college, technical school, and high school graduation or its equivalent. Examples Aviator, laboratory technician (lower level), chiropractor, detective, minor business executive, insurance salesman, pattern maker, retail dealer, etc.
Skilled tradesmen and low-grade clerical workers (16th–50th percentile)	Grades III, IV. Standard scores from 80 through 99	High school, junior high, or some grade school education. Work demanding specialized skill and knowledge. Work often done under supervision.
Semiskilled and unskilled occupations (lowest 16%)	Grades IV, V. Standard scores below 80	Education seldom above the elementary grades. Examples Boiler washer (R.R.), day laborer, farm laborer, junkman, sailor (deck hand), street sweeper.

* From *Minnesota Occupational Rating Scales*, by Paterson, Gerken, and Hahn.

† Bingham, Walter V. "Inequalities in adult capacity—from military data," *Science*, 1946, 104:150.

‡ Adapted from the *Minnesota Occupational Rating Scales.*

Table 2 is typical of the generalized approaches to levels of academic ability. The divisions are useful in making

rather rough determinations but frequently do not fit individual cases. In addition, application of this formula alone will break down because of the exclusion of the many factors, such as motivation, interest, emotional maturity, etc., which affect performance within the range of academic ability as measured by tests or school grades. Herein lies one of the counseling dangers of overinterpreting our data and predicting too much from a single criterion.

The counselor will quickly discover that other, and much more specific, points of reference are needed when he plans with the counselee his educational-vocational future. It is necessary to repeat that it has been said that "there is a four-year college granting a baccalaureate degree for every level of normal intelligence." If we include all of our colleges with "low standards" this is probably very close to an accurate statement. Super[6] summarizes this point as follows:

> It should be pointed out also that great differences exist between schools and colleges. There is a college for every level of mental ability. Of three hundred and fifty-five colleges which reported the results of an intelligence test given to all of their freshmen in 1938, the highest-ranking had a freshman class with an average I.Q. of 122, the college at the middle of the distribution had a class average of 108, and the lowest-ranking college had a freshman class with an average I.Q. of 94. One-fourth of the freshmen in the last college had intelligence quotients of less than 90; less than one-fourth had I.Q.'s of 100 or more, were, that is, of "average" or better than average intelligence!

Not only are there differences between and among colleges and universities, there are equally great differences between and among the schools and departments on the same campus and sometimes between instructors in the same course. In terms of academic ability required for graduation the schools and colleges on a university campus may range over a wide scale. In general, science curriculums,

[6] Super, Donald E. *The Dynamics of Vocational Adjustment.* New York: Harper & Brothers, 1942. P. 51.

including medicine, physics, chemistry, psychology, and mathematics, are found to require higher measured verbal and numerical abilities than do certain general types of curriculums or those preparing people for different or "lower" professional, technical, and semiprofessional occupations. On one campus which stands high among our great universities, the four-year college at the bottom of the scale of academic ability requirements had an average I.Q. equivalent for freshmen below that for the high school seniors in the state. It is not the business of the counselor to inquire as to whether such a situation is sound or silly, in terms of individual, social, or educational philosophy. It *is* his business to know the situation as it exists in order that he may soundly counsel with students in quandaries.

Eckert and Marshall[7] in the New York State Regents' Inquiry supply evidence of curricular differentials at the high school level, showing the decreasing amounts of measured academic ability needed as we move from the requirements for college entrance, through those for the general and business, to the vocational curriculums. Moreover, within each of these curricula they found teacher differences. As those counselors who have worked in large secondary or collegiate institutions know, the difference between high and mediocre grades often lies in selection of the teacher rather than in the field or course.

In helping counselees to determine the appropriate level of endeavor for occupational preparation and for further formal academic training the counselor must find answers to the following types of questions.

1. What type of learning is involved?
   a. Concrete material learned by example and observation?
   b. Abstract materials involving symbols to represent objects and ideas?

[7] Eckert, Ruth E., and Marshall, Thomas O. *When Youth Leave School.* New York: McGraw-Hill Book Company, Inc., 1938. P. 93.

c. Quality of learning?
d. Quantity of learning?
e. Speed of learning?
f. Length of learning period?
g. Demand for retention of various types of materials learned?
h. Skills required, general and specific?

2. What is the level of competition?
   a. For the threshold jobs?
   b. For advancement in the field?
   c. For ceiling achievement?
3. How much formal education is necessary?
4. How much formal education, at what level, and of what kinds can this individual absorb?
5. How many and what kind of activities related and contributory to formal education are essential?

Making and Expressing Judgments of Academic Ability

Making judgments of academic ability (and aptitude) involves a process of considering a number of criteria. No single index of academic ability, with sufficient reliability and validity, exists. Bingham[8] cites three helpful basal criteria. "Just how intelligent (a person is) is measured in terms of (*a*) the level of difficulty of the problems he can solve, (*b*) the range or number of problems he can solve at that level, and (*c*) the speed with which he can solve them." To these, we would add a fourth: (*d*) the precision and accuracy with which he can solve them.

The difficulty level of the problems one can solve is at present only crudely measured in terms of standardized tests which differ one from another in many ways. There is no standard yardstick of problem difficulty, particularly after the individual passes into his teens. The Stanford-Binet intelligence test does give us a fairly effective general yardstick during the years when mental age is still below its

[8] Bingham, Walter Van Dyke. *Aptitudes and Aptitude Testing.* New York: Harper & Brothers, 1937. P. 36.

apex. Just as we have no single standard of problem difficulty, we likewise have no satisfactory measure of how many such problems the individual can solve at an estimated standard, *i.e.*, the horizontal range as related to the vertical range of his problem solving. Acceptance of any one of the many standardized test batteries limits us to one inadequate point of reference, and our findings must be stated and interpreted in terms of this point of reference. Again, speed, accuracy, and precision in problem solution all force us into similar quandaries, for speed may destroy accuracy or precision may inhibit speed. In the face of these complex variables and the crudity of our instruments, we nevertheless reach roughly practicable results through the use of problem sampling techniques, but we have by no means approached, as yet, adequate measurement of ability to solve problems which would be required to meet Bingham's criteria fully.

In counseling practice, therefore, we make use of the best samplings we can find, in regard to indices derived both from measurement and from norm populations deemed to be fairly representative of the limited world in which the counselee is assumed to move. Such sampling judgments of amount and quality of academic ability are usually made in terms of the following types of evidence:

Subject-matter grades
Results of tests, such as
  academic "intelligence" tests
  reading tests
  academic achievement tests
Performance in the environment—ratings of observed behavior
Self-estimates
Perseverance in academic and related tasks

Since this section deals with specific aspects of making judgments about academic ability and the concept of levels has been discussed above, there remains for our purpose only a strong warning about the manner in which a counselor conveys his findings and judgments to the counselee. Most

counselors do not favor the giving of scores, percentiles, I.Q.'s, or other results of tests to the counselee. Darley[9] states the viewpoint of the authors well when he says:

> Do not give isolated test scores to the student. It is quite likely that even the counselor at first understands only vaguely the meaning and interpretation of test scores, even though he may have been exposed to the elements of statistical methods and test procedures. How much less likely it is, therefore, that the student, lacking as he does the counselor's experience, will understand and interpret the test information wisely. If he wants to know his test results, tell him his approximate rank, saying he is in the upper one-third or upper one-fourth or lower one-fifth. But even in making a statement of this kind, be sure to describe also the group with which he was compared.
>
> For example, tell him that he is in the upper half of this group of high-school seniors on a measure of ability but that this rank would place him in the lower half of students entering a near-by university. Be very careful not to give out I.Q.'s (which are generally misunderstood by the public), or specific grades or percentiles on aptitude or interest tests. And by all means *do not give out scores on personality tests.* This mistake is very serious and frequently results in parental interference and indignation. Any rapport which has been established may easily be lost.

The safest method of presenting estimates of occupational level and academic ability is probably the use of adjectives to describe relatively broad qualitative and quantitative bands. Such expressions as "in the top tenth of graduates from junior high school in your city" or "in the upper half of college freshmen in this university" have meaning. "Very superior to___," "superior to___," "average compared to___," "somewhat below average for___" are useful methods of presentation. It is well to remember that, in working with secondary school students (perhaps with all cases), "some-

[9] Darley, John G. *Testing and Counseling in the High-school Guidance Program.* Chicago: Science Research Associates, 1943. Pp. 178–179.

what below average," "a little slow," or "this is not your strongest ability" are as low descriptively as one should ordinarily go. Comparisons often should be made both with norm groups and in regard to intrapersonal strengths. "This is one of your stronger abilities, but compared to professional draftsmen, you are somewhat below the average." One of the grossest of all errors, and one too frequently made by untrained advisers, is the comparing of noncomparable abilities. There is, for example, a widespread tendency on the part of academic personnel to look upon mechanical, artistic, or social abilities as being inferior to academic, scholastic, and verbal abilities when, in fact, they cannot be compared any more than can sunsets and carburetors.

Use of the I.Q. is a special case. Even psychologists do not always adhere to a rigorous definition or use of this concept. Teachers, however, have been so strongly indoctrinated to believe that it is *the* measure of academic ability, no matter how arrived at, and that it is a fixed brand which a pupil must wear for life that they appear, in some instances, to be lost if the measurement of academic ability is not stated in this form or if any qualities and modifiers are attached to it. Hence, we are still often forced, as counselors, to oversimplify our discussions of academic ability with teaching personnel, despite such warnings as Garrett's[10] that

> The requirements for a constant I.Q. are *not* met by any group tests with which I am familiar. They are met by the Stanford-Binet. The term I.Q., therefore, should *never* be used with group tests but should be confined strictly to tests of the Binet type. To be sure, some group tests keep the I.Q. approximately constant by assigning an I.Q. of 116, say, to the score in each age distribution one sigma above the mean; an I.Q. of 132 to the score two SD above the mean, etc. But such statistical I.Q.'s are *not equivalent* to Stanford-Binet I.Q.'s and when used interchangeably confuse rather than inform.

[10] Garrett, Henry E. "The effects of schooling upon I.Q.; a note on Lorge's article," *Psychological Bulletin,* 1946, 1:76.

Large secondary school and college personnel programs usually administer group paper-and-pencil tests of academic ability and too often use the results as if they were absolute equivalents with individual tests.

Counselors also face difficulties in reporting the results of estimates and judgments of academic ability in quantitative terms other than I.Q.'s. Teachers in secondary schools and professors in colleges have found that it is easier to understand and use percentile ratings than to comprehend and employ standard deviations. Many of them have little understanding of the distortions which can, and do, occur when percentiles are used. Nevertheless, we continue to use this crude form of measurement because, while faculty and counselees seldom have insight into measures of variability, they do comprehend that a given student is "better than 70 out of 100" in ability to pass social science courses in this university, or poorer in applying chemical formulas than "half of the laboratory technicians with college degrees." However the counselor may rebel against vague or inaccurate interpretations, and however deep his own understandings of mental organization and its proper explanation may be, he will, for a long time, be forced to forego psychological purity in the interests of being understood by both colleagues and counselees.

Mechanical Aptitude and Ability

Although factors of mental and physical organization which contribute to what is called *mechanical ability* have been given attention for four decades, research has been chiefly fragmentary and concepts of its application to educational and vocational counseling quite limited. Early studies dealt primarily with manipulative skills and the coordinations involved in jobs in the carpentry and machine shops and on assembly lines at the semiskilled and skilled levels of industrial employment. To these, in time, were inevitably and logically added experiments to demonstrate

that a second factor, insight into the setting and relationships of objects in space, is also basic in mechanical ability. A third factor, motion, was observed as important and, since motion involves time, timing, rhythm, etc., these too were introduced, and time-motion-space-coordination-multiple-attention researches of some complexity were undertaken.

Because, as indicated, research in this field was initially restricted to the lower level occupations, the label *mechanical ability* acquired the stigma of being somehow of lesser value to man and to society than other abilities, especially the academic. Teachers and guidance personnel in the schools and colleges widely and falsely assumed that any student who was "too dumb" to perform at high level in history, English, and mathematics would, by that very token, be successful in printing, metal, engine, or woodworking shops. This notion has long been disproved on many fronts but it still persists in the minds of many, and in a large number of public schools the practice of assigning "low-level" academics to "vocational" departments is continued. Researchers, on the contrary, making the obvious observation that certain high-level professional people such as engineers, architects, and physicists must also deal with matters involving neuromuscular coordinations, manipulative skills, space relationships, motion, time, and timing, extended their investigations of the place of mechanical ability in the higher professional and technical occupations and began to work with the combinations of this ability with academic conceptual, verbal, and numerical factors.

What has not yet been clearly or widely seen and studied is the fact that what we call mechanical ability is an essential element in the performance of many other tasks than those commonly thought of as "mechanical," and at various levels. A dentist or surgeon, for example, must possess in the highest possible degree a sense of space relationships, must be able to locate with exactness the placement not only of gross and fine muscle layers, bone structures and organs, but also of blood vessels and filamentlike nerves. His coordinations

must in certain respects be swift and perfectly controlled lest the knife or the needle slip. In a quite different fashion, and toward other ends, the painter, the sculptor, the violinist, the airplane pilot, the modiste and dress designer, the master of theater craft, and many others must possess mechanical ability of high order in combination with other types of abilities, if they are to perform at all successfully. Opportunities for research in this field are endless and the paucity of our present knowledge should stimulate counselors to be both cautious and imaginative in interpreting findings on mechanical ability tests to their counselees in considering their educational and vocational problems. With this brief background, we turn now to consider some of the research that gives the counselor some aid in attacking the problems of his counselees.

With the exception of the Minnesota investigation,[11] this research, as suggested, has tended to be typically fragmentary. Our present knowledge of the factors which permit some individuals to be successful, and reasonably happy, in manipulating inorganic and organic objects in space is limited. Our definitional problem is appreciably more difficult when we must consider individuals particularly well fitted for dealing with the symbols which represent objects in space. Such workers include engineers, physicists, architects, surgeons, etc.

Although the differentiation hypothesis[12] of mental organization helps us to understand some of the phenomena in measuring and judging quality and quantities of mechanical ability in adults, it does not explain the specificity which we find when we attempt to judge, measure, or estimate this ability. At the professional and higher technical levels of mechanical ability there is an obvious strong relationship

[11] Paterson, Donald G., Elliott, Richard M., *et. al. Minnesota Mechanical Ability Tests.* Minneapolis: University of Minnesota Press, 1930.

[12] Garrett, Henry E. "A developmental theory of intelligence," *The American Psychologist,* 1946, 9:372–378.

between successful behavior in solving problems of a mechanical nature and verbal and numerical factors of mental organization. And at similarly high levels in art and music, mechanical ability must be combined with appreciative, interpretive, and creative aesthetic "intelligence" or ability. According to Garrett's hypothesis, noted above, specific factors should emerge as the process of individuation proceeds. Even with younger subjects, the Minnesota investigation demonstrated specificity of test results to particular mechanical operation. Some light is thrown on this problem by the assumptions underlying the Minnesota investigation.[13]

The assumptions involved in this study should be stated explicitly because they determine the significance of the term "mechanical ability" as used in this research. The theory of unique traits, adopted as a working hypothesis, required the devising of tests and teams of tests which would give a measure of mechanical ability as unrelated as possible to a trait for which adequate measures were already in existence, namely, intelligence required for academic success. The fact that such tests could be devised does not imply that there is no relation between mechanical ability and intelligence as those terms are ordinarily used, or that intelligence is not involved in success in mechanical work. If intelligence contributes to shop success, then such a mechanical test plus intelligence will predict shop success better than another mechanical test of equal validity but correlating higher with intelligence.

Another assumption was involved in the choice of a criterion by empirical rather than absolute standards. The validity of success in shop courses as a criterion was not determined by checking it against a supercriterion, for it is evident that its validity could never be finally determined in objective terms. Some still higher criterion would always be needed. The justification for the criterion employed in this study, therefore, is whatever soundness there is in the common-sense judgment that mechanical ability is required for proficiency in the kinds of work included in shop courses of the kind selected for this experiment.

[13] Paterson, Elliott, *et al.*, *op. cit.*, p. 298.

The major conclusions reached in the Minnesota studies are important. Two individually administered tests were developed involving relatively unique spatial relationships, eye-hand dexterity and, in one instance, insight into eye-hand-tool mechanical operations. One paper-and-pencil group test showed promise despite a fairly high correlation of its results with the results of general intelligence tests.* No single general factor of major importance was found. "Low intercorrelations between different measures of mechanical ability suggest that factors of high specificity play a major role *ibid.*," Environmental factors are reported as having played a minor part in the test scores. Sex differences could not be clearly established in tasks where greater general strength, characteristic of the male in the age group, was not involved. Perhaps the most startling finding was that students majoring successfully in vocational secondary schools and those in a college of engineering were not demonstrably superior on a test score criterion to individuals in academic curriculums.

Super[14] treats manual skills, visualization of spatial relations, and mechanical ability separately, rather than as contributing aspects of performance, or as supplementary factors, which yield behavior classifiable under a single head. He avoids the formulation of a definition, understandable in any concept as complex and tentative as this. Instead he emphasizes the adjustment of the worker and job satisfaction as germane to the counselor's efforts to aid individuals toward fitting their ability patterns to job patterns, no matter how general or specific these may be.

Viteles[15] reviewed research on mechanical ability prior to 1932. His review covers the effect of measures of mechani-

* As yet unpublished materials indicate this relationship between the Army General Classification Test and the Army Mechanical Aptitude Tests used by the armed forces in World War II.

[14] Super, *op. cit.*, pp. 71–76.

[15] Viteles, Morris S. *Industrial Psychology.* New York: W. W. Norton & Company, 1932. Pp. 230–238.

cal ability on job-selection programs if we entertain any one of various hypotheses regarding the nature of mechanical ability. These hypotheses are: (1) mechanical ability is composed of highly specific aspects or factors; (2) mechanical ability is a general ability but relatively unique and unrelated to other abilities; (3) mechanical ability is identified only as behavior resulting from a restricted number of group factors; (4) mechanical ability is an unmodified gestalt phenomenon, dynamic, complex, and in such flux as to be impossible to pin down. Viteles also avoids a definition.

Another approach is that of the ratings in the Minnesota Occupational Rating Scales.[16] These are based upon the judgments of specialists in the field of vocational and industrial psychology. Although these ratings, like all similar estimates, are crude, nevertheless they are useful in counseling when they are combined with the concepts of field and level as derived from analysis of occupational processes matched with educational-vocational problems. No hypotheses regarding the basic factors of mechanical ability are provided in this source. It does, however, attempt a definition formulated as follows: " . . . both the ability to manipulate concrete objects—to work with tools and machinery and the materials of the physical world—and the ability to deal mentally with mechanical movements."

Although this definition is helpful to the counselor it poses difficulties. The major snag lies in its implication that the abilities necessary for the master mechanic, the electrical engineer, the surgeon, the airplane pilot, the violinist, and the sculptor are of the same order and at the same level. Each of these occupations is rated as being in the top 10 per cent of jobs requiring mechanical ability as a prime factor, but the skills and insights used in performing the duties of these occupations are by no means demonstrably identical nor even necessarily closely related. The master

[16] Paterson, Donald G., Gerken, Clayton d'A., and Hahn, Milton E. *Minnesota Occupational Rating Scales.* Chicago: Science Research Associates, 1941. P. 21.

mechanic has learned his trade by some years as an apprentice, service as a journeyman, and extended experience beyond this stage. His understanding and visualization of mechanical movements more often are derived from practical than from normal school or college experience. Ordinarily his high level of performance is related to eye-hand, eye-hand-tool, and gross muscle coordinations. A high order of comprehension of concrete spatial relationships and of time and motion is present also. He may or may not know or use the academically learned and mathematically expressed laws of mechanics which are seen by the university-trained engineer to govern the outcomes of his job behavior.

The electrical engineer often is, but need not be, a person gifted with a high order of mechanical dexterity. His major competence is usually in terms of numerical, spatial, and verbal factors at a symbolic level. The surgeon, airplane pilot, violinist, and sculptor also must each possess high dexterity combined with quite different abilities in each case. All of these combinations constitute a denial that high technical skills are less worthy than academic abilities or that the young possessor of such aptitudes is necessarily headed for subprofessional work.

In summarizing, then, the problem of defining "mechanical ability," our major concept is the probability that we are not dealing with a single, relatively unique trait but rather with a broad and variable pattern of behavior. We use the term "mechanical ability," therefore, as a convenient one to express patterns of job behavior, based upon various factors of mental organization, some of which have been explored by research, others assumed as tentative, constructed on the basis of observation and logical speculation. A study such as one by the staff of the Division of Occupational Analysis, War Manpower Commission, in *Educational and Psychological Measurement*[17] is representative of current applica-

[17] Staff, Division of Occupational Analysis, War Manpower Commission. "Factor analysis of occupational aptitude tests," *Educational and Psychological Measurement*, 1945, 2:147–155.

tion of the techniques of factor analysis to the problem of identifying factors which result in certain types of human behavior valuable in particular tasks or job-family situations. Mechanical ability can best be conceived, for counseling purposes, as a dynamic, qualitative, and quantitative pattern of factors including symbolic, concrete, and manipulative aspects of spatial, numerical, verbal, motion, and time factors as well as a controversial general factor. The presence of these specific factors in many different combinations among themselves and with others, at whatever level, will determine the counselor's general approach regarding mechanical ability to any counselee and his educational-vocational problems. The counselee will almost never understand all that lies back of the counselor's discussion and recommendations, but the counselor should have a clear understanding of how he himself reached his conclusions.

Levels of Mechanical Abilities

The level at which a counselee may come to apply any of the special abilities appears to be determined in part by the level of his academic ability. This is illustrated in Table 3, where mechanical ability is held constant while academic ability is free to vary. As the level of academic ability is depressed, the occupations for which the individual may be considered suited fall lower in the prestige hierarchy. One may have skills for manipulating objects in space which place him in the upper one-tenth of the general population but, unless his ability to deal with complex new situations is commensurate, the level of the populations with which he can compete in the mechanical area is limited.

The Minnesota Occupational Rating Scales illustrate this relationship clearly. In this source the highest level of mechanical ability is labeled "Professional and Higher Technological." As has been indicated above, the professional level includes only those with power to use symbols to represent objects and their relationships in space, time, and motion.

The various types of engineers are given as examples. Included with the professional in this highest level are those who are judged to possess a lesser amount of academic

TABLE 3. LEVELS OF MECHANICAL ABILITY AND AMOUNTS OF ACADEMIC ABILITY NECESSARY FOR COMPETITION AT VARIOUS OCCUPATIONAL LEVELS

Academic ability	*Mechanical ability*	
Professional level (top 10%)—College ability	Professional level: Use of symbols representing concrete objects Superb ability to manipulate concrete objects	
	90th percentile	
Technical level (76th–90th percentile)—Junior college and technical school ability	Technical level: Draftsman, foreman, and supervisor in mechanical occupations	
	76th percentile	
Average level (middle 50%)—high school ability	Skilled to semiskilled level:	Mechanic (average) Repairman Electrician Carpenter Potter Railroad Fireman Truck driver
	26th percentile	
Below average level (lowest 25%—Grade school or less ability	Semiskilled and unskilled level:	Wrapper Bench assembly Day laborer

ability, but who deal competently and practically with three-dimensional objects in space, as, for example, the toolmaker and master mechanic.

We use the term *technical level* (as distinguished from

technological) in Table 3 to indicate those workers who work with both symbols and actual objects, but who frequently do not possess sufficient academic ability to compete in the formal type of training to which the engineer is subjected. These workers have deep insight into mechanical relationships and movements. They can use both their working "know-how" and their knowledge of engineering principles acquired through on-the-job training and long experience. Many of these people have had some formal education in technical schools at the junior college level.

The skilled workers in the mechanical field, as conceived on this rating scale, are those who work under the supervision of professional and technical workers, although enjoying a large amount of freedom within the limits of their specialties. Average academic ability is needed to reach the competence demanded by the work which the skilled tradesman performs. Because the term "average" is used here to mean those who fall between the 26th and the 76th percentiles on a standard test of scholastic competence, there are as wide differences in academic ability as in manipulative skills between the best and poorest skilled tradesmen. As our table shows, the levels of academic ability and a special set of mechanical abilities usually coincide, but in some types of jobs it is not necessary that they do so.

The lowest levels of mechanical ability need not be considered at length here. Large numbers of marginal workers earn their livelihoods at these lower levels. The counselor finds it difficult to work with individuals in the lower end of the distribution because occupational potentialities are more restricted. Although the *Dictionary of Occupational Titles* lists large numbers of specific job labels calling for low-level mechanical skills, the job differentiations are not sharp. The individual who can perform the duties of one can perform as well those of an amazing number of the others at the same level. Examples of this are easily seen when we list a number of such job titles: boiler washer, scrubwoman, day laborer, junkman, garbage collector, chambermaid, long-

shoreman, deck hand, street sweeper, and textile worker (routine).

Estimating, Judging, and Measuring Mechanical Ability

The counselor must make his estimates, judgments, and measurements of mechanical ability always in terms of individual cases and at the levels at which each appears to have possible opportunities for occupational success and adjustment. Sources of information helpful to the counselor include hobbies, stated and measured interests, performance in school situations involving mechanical ability at an appropriate level, work experiences, and the results of a number of tests which tap various specific aspects and levels of mechanical ability and aptitude.

The longitudinal record of leisure-time activities as revealed by the autobiography, case record, or interview sometimes yields pertinent information. The counselee who has maintained a basement workshop over a relatively long period of time, who has completed increasingly complex projects of good quality, and who evidences enthusiasm in his plans for further future adventures in the field has indicated ability and interest which in turn may indicate aptitude for further training and growth toward full-time employment. Such a record indicates interests which, especially if confirmed by other evidence, may point in the direction of a mechanical field and give some prediction of achievable level. Shop grades and achievement in arithmetic and mathematics may be significant. Success in physics and chemistry have a bearing, particularly if the counselee has demonstrated competence and interest in the laboratory. If the counselee has had opportunities to make relatively free choices of various types of occupational experiences and has chosen and performed successfully in mechanical areas, this, too, may be valuable as an indicator of interest and ability. Even when choice was not free, as in assignment in the armed services, the evidence of performance and degree of satisfaction may be significant. Standardized tests

which measure such factors as groups of numbers and spatial concepts as well as manipulative dexterities may also yield clues for both the counselee and the counselor. It should be reiterated here that we do not possess any good general test of mechanical ability in the same sense that the Stanford-Binet tests academic ability in children and adolescents. We are forced instead to utilize tests measuring a variety of quite specific skills and differential aptitudes and from these arrive at our generalized judgment in terms of the clinical synthesis and analysis of these test results and all other pertinent data.

At the professional level, a good academic record in mathematics and the physical sciences is helpful for positive prognoses in any of the strictly mechanical fields, although these may have little bearing on such professional occupations as concert violinist and sculptor. In addition, it is well to establish the presence of an appropriate vocational interest pattern. At the technical and skilled levels the academic record becomes somewhat less important in so far as the college-preparatory subjects are concerned. Shop courses, including drafting and mechanical drawing, may be much more important. For the technical and skilled worker, quality of product becomes important. As is true in art or music, we can here say, "Let's see what you can produce." Production may be represented by drawings, ideas, or products considered to be indicative of mechanical skill at the level in question.

Prediction of success at the skilled level in the mechanical field often is more difficult than at the professional and technical levels. One reason is that, as we move down the scale of ability, there is a tendency for less differentiation among and between the duties attached to occupational labels. In the mechanical field more stress must be placed on the manual dexterities and coordinations than was true at the higher levels. Eye-hand, eye-hand-tool, and various gross-muscle-group coordinations become more important. We are now predicting with fair accuracy the degree of suc-

cess with various kinds of material treated with different types of tools. Concrete objects are the final product and the best predictive device. Because standardized tests of mechanical ability and aptitude have been so widely publicized, and because many of the performance tests are gadgets which impress, there is no need here to devote further space to the measurement of mechanical aptitudes and abilities. This subject, within the limitations suggested herein, has been treated extensively in the literature.[18] Those who wish to do testing in the field of mechanical aptitudes, abilities, and interests will discover much of the pertinent material in these references.

Social ("Intelligence") Aptitude and Ability

How well does your counselee handle his personal relationships and in what ways does he manage them? Does he like people? Do people like him? How many of them? Of what sort? Do they admire him because he seems strong and bosses them, tells them what to do? or because he flatters them? or because he is friendly but objective and does not interfere with them? Is he a "lone wolf"? a leader or a

[18] Readers will find the following sources good points of departure for information regarding tests of mechanical aptitudes, abilities, and interests:

Bingham, *op. cit.*, pp. 110–141, 170–177.

Darley, *op. cit.*, pp. 109–112.

Paterson, Elliott, *et. al.*, *op. cit.*

Paterson, Donald G., Schneidler, Gwendolen G., Williamson, Edmund G. *Student Guidance Techniques.* New York: McGraw-Hill Book Company, Inc., 1938. Pp. 222–242.

Strong, Edward K., Jr. *Vocational Interests of Men and Women.* Stanford University, Calif.: Stanford University Press, 1943.

Super, Donald E. *Appraising Vocational Fitness.* New York: Harper & Brothers, 1949. Pp. 184–297.

Traxler, Arthur E. *Techniques of Guidance.* New York: Harper & Brothers, 1945. Pp. 50, 60–61.

Viteles, *op. cit.*, pp. 225–244.

follower? or a mixture, sometimes aggressive, sometimes yielding and sometimes going it alone? Does he talk most of the time, or does he listen? Do friends rally round when he is in trouble, or desert him like the proverbial rats from a sinking ship? When he is under pressure and tension does his behavior toward people change to snarling at them, or does he grow more gentle and understanding? These and a hundred other questions raise themselves when we are concerned with individual and important differences in how our counselees deal with people. The way in which they manage these relationships with others is one of the vital indices of potential success, failure, or mediocrity in school and college and on the job.

One of the most asinine, damaging, and confusing errors that a counselor can make is to assume that there is only one kind of effective social "intelligence" and that this kind is one which "wins friends" and enables its possessor to "influence people," that the more "socialized" his counselee is the better for him at all times, under all circumstances, and in all occupations, and that the main purpose of dealing skillfully with other persons is to exploit them, control them, derive benefit from them. It is, from the point of view of the psychologist who is a clinical counselor, by no means so simple as that. The experienced counselor knows that some tasks, such as certain types of military command, of politics, and of business management, demand that kind of operational social ability. But he knows also that there are other occupations of high order such as creation in the arts, or research in the library or laboratory, that demand *asocial*, or occasionally, even *antisocial* attitudes and practices and isolation from most people in order to concentrate on the job in hand. He knows that there are still others, such as pastoral ministry, missionary work, some aspects of social service, the teaching of small children and of the handicapped, nursing, and the like, that demand the utmost in the sacrifice of any predatory intent in favor of service with little thought of reward. We find that the authorities are in agreement on

many points in considering social intelligence. Before considering its nature in detail, four generalizations are presented as an approach to understanding. These are

1. *Social intelligence is not a unitary trait, although it may be a generalized trait.*
2. *Social intelligence is not a synonym for personality.*
3. *Social intelligence appears to be more loaded with environmental factors and learning than with heredity.*
4. *Social intelligence is not composed of a number of responses which invariably occur when similar situational stimuli are presented.*

E. L. Thorndike[19] is generally given credit for positing the existence of a social intelligence in his division of intelligence into *abstract, mechanical,* and *social* areas. He defined it in terms of understanding and managing people. Cisney[20] expanded this earlier definition by adding the phrase, "to act wisely in human relations." Gordon Allport[21] considered the concept in some detail in his 1937 book, *Personality: A Psychological Interpretation.* On page 407 he states:

> But it is obvious that "social intelligence" cannot be an inherited capacity to the extent that abstract and mechanical intelligence may be. It is rather a *trait* developed through opportunity and through interest, upon the basis of a native general intelligence.

On page 426 he gives further clue to the complexity in saying:

> There is no doubt that social intelligence is a generalized trait. Entirely different types of behavior may be called for depending on circumstance, and a flexibility in shifting from

[19] Thorndike, E. L. "Intelligence and its uses," *Harper's Magazine,* 1920, 140:227–235.

[20] Cisney, H. N. *Classification of Occupations in Terms of Social Intelligence, Artistic Ability, and Musical Talent.* M.A. thesis on file in the University of Minnesota Library, 1935.

[21] Allport, Gordon W. *Personality: A Psychological Interpretation.* New York: Henry Holt and Company, Inc., 1937. Pp. 407, 426.

one to the other is the very essence of the trait. In an American home a tactful gentleman chooses an uncomfortable sofa, if by doing so he leaves the more comfortable chairs for the ladies; but in Germany he learns quickly to avoid the sofa, however uncomfortable, for it is the seat of honor reserved for elderly matrons. In America he escorts a lady on the side nearest the curb; in Europe he will walk on her left. In an Eskimo's home he will belch heartily to show appreciation of a satisfying dinner; on Beacon Hill he will not. Social intelligence is not a matter of performing one act on all occasions, but of varying (even reversing) behavior to accord with circumstances. For this reason it is absurd to regard social intelligence as a congeries of specific habits.

The Minnesota Occupational Rating Scales follow Cisney's definition, but differ somewhat in describing the levels of the trait, or ability. Robert L. Thorndike and Saul Stein,[22] summarize their review of the attempts to measure social intelligence as follows:

Whether there is any unitary trait corresponding to social intelligence remains to be demonstrated. It may be that when the contributions of abstract intelligence (or of various of the factors which make up abstract intelligence) and of interest in people are removed there will be nothing left. It may be that social intelligence is a complex of several different abilities, or a complex of an enormous number of specific social habits and attitudes.

As with other traits, aptitudes, and abilities, our attempts to understand social intelligence must be made from an eclectic and therefore fragmentary view, no matter how much we may want to use it as a whole. Hence, we try to tease out specific items of behavior which are helpful in demonstrating social efficiency. Examples of this approach are found in popularized presentations of "the road to suc-

[22] Thorndike, Robert L., and Stein, Saul. "An evaluation of the attempts to measure social intelligence," *The Psychological Bulletin*, 1937, 54:275–285.

cess" and of "how to manage people." Wendell White and Donald Laird[23] exemplify writers who have attempted to supply definite techniques for dealing with others in social and business interests. There is a prolific and growing literature in advertising, propaganda, and public-opinion analysis, much of which is aimed at the same goal. In most of these the line between predatory and social service interests in the presentation of these "canned," but sometimes effective, methods is thin or vanishes.

For the purposes of the educational-vocational counselor, it may be useful to sketch here some of the broad patterns of modern thinking about social intelligence and its operation before we get into some of the aspects of research and application to training and to jobs. Karen Horney,[23a] out of her wide study and experience in psychoanalysis, views all human beings as beset from the cradle to the grave by a "basic anxiety" which is made up of "loneliness" and "fear" in a "dangerous" and "hostile" world. To ease this basic anxiety we build, she says, three modes of defense behavior:

1. We move toward people. We fight our loneliness, gather our courage by surrounding ourselves with loved and loving ones, with friends, with acquaintances, who mitigate our sense of isolation and upon whom we feel we can count in the pinches. This is what is described inaccurately in the older literature as the "herd instinct."

2. We move against people. We recognize that the world about us is in fact dangerous and much of it hostile, and we, therefore, strengthen and arm ourselves to meet it in battle. We adopt the philosophy of "the survival of the fittest." We accept life as being competitive. We enjoy a scrap. We want to be superior, to command, to lead, to boss, to over-

[23] Laird, Donald A. *What Makes People Buy.* New York: McGraw-Hill Book Company, Inc., 1935.

White, Wendell. *The Psychology of Dealing with People.* New York: The Macmillan Company, 1941.

[23a] Horney, Karen. *Our Inner Conflicts.* New York: W. W. Norton & Company, Inc., 1945. Pp. 41–47.

come and conquer others and to use them for our own ends. We are not alone because we have our troops, our organizations, our unions, and our committees to surround and support our leadership. We are not afraid, that is, not much, because we are more powerful, more farseeing than most.

3. We move away from people. We accept loneliness as a good and normal state because it keeps us out of struggle. It also keeps us free from intrusion into our private lives by those who would lean or be parasites upon us. We "live alone and like it." We are self-sufficient. People, parties, social contacts do not use up our time and our energies which we want to employ in reading, writing, painting, composing music, culturing bacteria in our laboratory, or smashing atoms in our cyclotron. We "avoid all entangling alliances."

Horney implies that persons of the highest order of social intelligence are those who have learned all three of these techniques and know when, how, and how much to use each of them. They lean on others when the leaning is good. They fight when a battle is necessary, and they run away when withdrawal or flight is indicated. Few, however, reach this maturity of social intelligence. Most people predominantly follow one of the three methods of social adaptation. If, in so doing, they do not carry it to the extreme of compulsive neurosis, the specific one of the techniques they follow becomes one of the most important indices to a counselor of the counselee's vocational potential.

This is true on the one hand because social service jobs such as teaching, social work, ministry, general medical practice—particularly in rural areas—and the like demand workers who are primarily "movers toward people," who are characterized by such descriptive adjectives as "sympathetic," "humanitarian," "unselfish," etc. Success in performance of these tasks requires that they work constantly and warmly with others, win their affection, exert little or no coercion upon them. On the other hand, competitive business, industrial, political, and military jobs are successfully carried out only by the predominantly aggressive, the

pushers, the scrappers, the men and women who "get things done despite hell and high water." They move against people who are in the way of their accomplishment. They coerce, they command, and they control and manipulate by any means, from cajolery and persuasion to sheer force. Still other occupations can be performed well only by those who move away from people, the accessioner and cataloguer in the library, the file clerk who spends his days alone in the long dim aisles of cabinets full of papers, the lighthouse keeper on a wind-swept isolated promontory, the composer of symphonies, the scholar in his study and the scientist intent on a long-drawn experiment, and the fighter pilot speeding through the substratosphere. In view of these concepts it is obvious that a counselor must not assume that the aggressive, apparently socially intelligent counselees are "well adjusted"; that the sensitive, kindly ones need to be made "tougher"; nor that those who are "shy" and "introverted" need to be converted into bullies.

Still other broad concepts, useful in structuring the counselor's thinking about and clinically applying the factors of social intelligence, are those of Allport[24] and Vernon emerging from their long experiments with their Scale of Values. Following Spranger's *Types of Men* and in accord with some contemporary theories of conditioning, figure-ground, and dominance,* these researchers built a scale posited on the assumption that our individual and social behavior is structured by the values we attach to one or another way of life, thought, and emotion. Adapting Spranger they construct the following archetypes: (1) The Theoretical Man, whose basic drive is the search for facts, for truth. In general, he is the scientist. He is cold toward unsubstantiated opinion. He rejects feeling. He asks always: "What are the facts?" His social behavior may be blunt, unsympathetic, analytical.

[24] Allport, Gordon W., and Vernon, Philip E. *A Study of Values: Manual of Directions.* Boston: Houghton Mifflin Company, 1931.

* See especially Murphy, Gardner. *Personality.* New York: Harper & Brothers, 1947. Particularly Chaps. 8, 9, and 12.

He cares nothing for applications. He is the "pure" theorist and the rarefied philosopher. He denies or ignores the practical, the beautiful, the religious. (2) The Aesthetic Man, who attaches his deepest appreciation and understanding to form, color, unity, coherence, emphasis, balance, harmony; who feels with Keats that "beauty is truth, truth beauty"; whose relations with other people are based upon their satisfying these aesthetic principles and are therefore usually transitory and ephemeral. He has little use for facts, none for practical matters or for power over others. He likes those who give him incidental and transitory illuminations of beauty, hates those who display any ugliness. (3) The Economic Man, whose highest values are the utilitarian, who asks: "Does it work? What will it get me? How can I succeed? What is it worth?" He is one subtype of Horney's mover against people and fits quite well with the American stereotype of "the practical, hardheaded businessman." (4) The Political Man, whose basic interest is in controlling the lives, actions, behavior of other people, who will use any technique of coercion toward that end. He is the second subtype of Horney's aggressor. (5) The Social Man, who in many ways parallels the Horney mover toward people, whose values are centered in service to others and whose social behavior is therefore beneficent, self-sacrificing, and sympathetic. (6) The Religious Man, whose fundamental desire is for unity with God, with Emerson's "oversoul," or with Nature, regardless of his sect or creed, and whose social behavior may run the gamut from profound belief in the "brotherhood" of all creatures and things in the universe to a conviction that the only way to such unity is through the isolation of the hermit, the silence of the Trappist monk, and the sloughing off of all human relations whatsoever.

A skillful counselor will find these assumptions and the measurements of social intelligence based upon them useful in dealing with counselees since, as with Horney's classification, it becomes obvious that the value attachments which

dominate the thinking and feeling of a counselee, and which may be validly and reliably measured in the Allport-Vernon Scale, give strong evidence of potential success or failure both in academic work and on the job.* In school it is common for students of low measured aesthetic values to do poorly in courses devoted to art, music, and poetry and to misunderstand and reject association with students who are avidly hungry for aesthetic experiences.

Another concept concerning social intelligence which the educational-vocational counselor must continually explore is that individuals vary tremendously in their social behavior as between dealing with people in a one-to-one, face-to-face situation and in exercising persuasive or coercive power over large numbers. That one is highly effective as an individual salesman, office receptionist, a private tutor or teacher of a small class, or a chairman of a committee where interpersonal relationships are direct and close does not at all mean that he can be equally compelling in the use of mediums of mass communication when he speaks from the public platform, from the pulpit, or over the radio, acts upon stage or screen, or writes advertising or commentary or "best sellers" that move great masses of folk. Millions have been moved to feel, think, and act on a world scale by such masters of radio as Franklin D. Roosevelt and Winston Churchill. Other millions have been impelled to buy soaps and ciga-

* A delightful illustration of this is the case of a college student known to the authors, who rather strongly fitted the Allport-Vernon Social Man and the Horney mover toward people. To help out his college finances, he undertook to sell a new gadget to restaurant keepers in a large city. He worked hard at it all one summer. At the end, he knew most of the restaurant men well, he knew a lot about their families, their problems, their hopes, and their ambitions, he was warmly friendly with many of them, and he had cleared a net profit of $75 for three months' work. His college classmate and friend, who fairly well typified the Economic Man and the mover against people, attempted to sell the same device in another town. At the summer's end he knew little or nothing about his customers, but he had cleared more than $1,000 and his expenses.

rettes by the "socially alluring" voice of a broadcaster speaking the words of a "socially intelligent" copy and script writer, neither of whom is known to any of his hearers.

If we consider the matter of degree of coercion in the exercise of social intelligence, we find that persuasiveness becomes less necessary if there is an actual or implied threat held over us. Thus, while teachers need above-average social intelligence, the fact that they can resort to disciplinary action requires that they need less smooth persuasion than the real estate agent, who cannot penalize a customer for not buying a lot or a house. The physician has the implied threat of serious illness or death if his advice is ignored. The lawyer, unless he is pleading before a jury, has a club in terms of the consequences of going against his judgment. The military officer has the menace of court martial, guardhouse or brig, or Federal prison enforcing every order he issues, and policemen, in dealing with the public, have to be trained to distinguish cases in which persuasion should be used from those where coercion is mandatory. There is much food for thought for the counselor in Thornton Wilder's[25] analysis put in the words of Julius Caesar. He takes the position that all of us are constantly torn between a deep desire for unlimited, unrestricted freedom to do what we want to do, and a contrary powerful fear of the consequences of being free. He makes clear that, in our relationships with people, we therefore tend to resent or even to hate those who threaten to restrict and coerce us and, alternately, to admire or love them because they relieve us from responsibility for making decisions and taking the consequences. This basic theory may explain much of why students do not get along with teachers and employees with bosses. It may be assumed that high social intelligence would enable one to recognize this conflict in oneself and would lead to adaptation and adjustment in school or on the job.

Much research has recently been done and is continuing

[25] Wilder, Thornton. *The Ides of March.* New York: Harper & Brothers, 1948. Pp. 218, 238.

in another aspect of the operation of social intelligence and its development in the studies carried on by Lewin, Lippitt, Bradford, and others in group dynamics, first at the Massachusetts Institute of Technology and now at the University of Michigan. In essence these are full-scale experiments to study how individuals can learn to behave to make democratic group work most effective, to solve community, state, and national organizational problems. They range from small committees, dealing with practical matters of how to get something done, to large conferences on high policy. Their findings in the techniques of organizing and the tools of training for group social action already appear significant for counselors and educators, for employers and government workers, and the reader is strongly advised to keep in touch with the literature and reports in group dynamics.

Levels of Social Ability

How important the type and level of social ability may be is indicated by the fact that many studies of why people have been fired from jobs show that the large percentage have been discharged, not for technical incompetence, but because of personality difficulties. This has usually meant ineptitude or failure in interpersonal relationships with bosses, fellow workers, and subordinates. A statement of the useful levels of social intelligence of some types in some occupations is presented in the Minnesota Occupational Rating Scales. The top level is there represented as being characterized by face-to-face situations in which the person possessing and demonstrating an unusual degree of this trait shapes the behavior of others in desired directions by persuasion and without resort to force, actual or implied. Some politicians sometimes meet this criterion. The life insurance salesman, selling an expensive service with no benefits to the insured except a feeling that his family will be taken care of when he dies in the presumably remote future, is a good example of a worker whose success depends upon an unusually high level of this kind of social ability.

Managerial positions and professional occupations which give the individual a measure of power over others are rated at the second level. These require, as a minimum, less of the benign noncoercive social ability than do occupations included in the top level. Persons in managerial positions have the power to affect future employment, job status, and income. Under the velvet lies steel. As has already been mentioned, the military officer, policeman, physician, lawyer, and teacher have varying degrees of dictatorial power which can be invoked to help them to control our behavior with or without resort to persuasion.

An average amount of social ability is needed in many occupations at the third level. For example, the vast numbers of retail salesmen and reception-desk clerks fall in this category. The filling-station operator depends on pleasantness to customers to maintain or increase his sales.

Many occupations, as has been suggested, require no extensive or important social contacts and make few demands in this direction other than just being able to stay out of trouble arising from social conflict. Watchmakers, research workers, file clerks, library cataloguers, lighthouse keepers, and often artists can be asocial if they wish and often must be so to do their tasks well. Their jobs are seldom in jeopardy because they are inept in persuading or managing people.

Estimating, Judging, and Measuring Social Aptitude and Ability

Although the importance of social ability is clearly recognized, we have thus far been able to accomplish surprisingly little in its quantitative or qualitative measurement for general clinical counseling. This is partly because of our failure to reach a clear understanding of the complex nature of the generalized trait or traits in question, and partly because reliable and valid tools and techniques for estimation and measurement are few and crude. While it may be solidly assumed that social behavior is less strongly weighted with

heredity than many other aptitudes and abilities, and hence is more susceptible to improvement through training, our educational system has done much less to set up effective learning situations for its development than for other abilities less amenable to schooling. We put great stress on English, mathematics, and science, although these are mastered by use of academic ability or abstract intelligence, which is behavior generally thought to be quite heavily loaded with hereditary factors. Our problems also are difficult in discovering aptitudes for social efficiency because research in the field has left somewhat of a hiatus between the nursery school age groups and the young adult.

Child psychologists such as Anderson[26] have given us insights into how social behavior develops in small children. They also indicate the importance of early experiences and describe techniques in developing ways of behavior in group situations which are socially acceptable and personally satisfying. Unfortunately, we do not have longitudinal studies of the growth of social intelligence which carry through the elementary and intermediate grades into secondary school and college. The methods of observation which work well with the child are probably inappropriate with older subjects, and we do not as yet have equally good tools and techniques for studying the social behavior of the adolescent and young adult.

Among the devices which indicate aptitude for dealing with people are the Allport-Vernon Scale of Values and the case study judgment of dominant ways of reaction as described by Horney and summarized in this chapter. These are "guess who" and sociogram[27] techniques suggested in Chap. 5. Evidences of peck order,[28] specific indices of leadership in various types of activities, and the tendency to

[26] Anderson, John E. *"The development of social behavior," American Journal of Sociology,* 1939, 44:837–857.

[27] Bronfenbrenner, Urie. "The graphic presentation of sociometric data," *Sociometry,* 1944, 7:283–289.

[28] Murphy, Gardner. *Personality.* New York: Harper & Brothers, 1947. Pp. 574*ff.*

join and be accepted, versus isolation and rejection, all are important if we can obtain valid and reliable observation and recording so that meaningful data are available to the counselor as the counselee becomes older. Such a longitudinal record would afford us an opportunity to attempt remedial work while there is a chance for worth-while gains to the counselee through programs in educational institutions, designed to make changes more important than, for example, the improvement of poor study skills in science or foreign language!

Because we do not have longitudinal studies and because ratings of social intelligence have not always yielded satisfactory reliability and validity, many attempts have been made to devise tests of social aptitudes and ability. Thorndike and Stein[29] reviewed these attempts up to 1937. They concluded that measurement of "ability to deal with people" had not been satisfactorily accomplished up to that time. Although these writers refer to the attempts to measure social aptitudes and ability through interest and attitude questionnaires, they do not introduce pertinent materials from the Strong Vocational Interest Blank. Studies of the Kuder Preference Record since then have thrown additional light on the use of interest inventories as tests of these aptitudes and abilities for the purpose of selecting salesmen. Various investigators have found that successful life insurance salesmen were differentiated from men-in-general by their high scores on certain scales of the Bell Adjustment Inventory (Adult Form), the life insurance scale of the Strong Vocational Interest Blank, and the persuasive scale of the Kuder Preference Record. This occupational group, which is generally considered to be possessed of unusual persuasiveness and a particular type of social ability, was markedly different from the groups with which it was compared relative to measured social aggressiveness. Other studies of the selection of salesmen give the same results.[30]

[29] Thorndike and Stein, *op. cit.*

[30] Hahn, Milton E. *Social Intelligence in a Distributive Occupation.* Ph.D. thesis on file in the University of Minnesota Library.

For all these reasons, the user of personality questionnaires should be extremely cautious in their interpretation, since no instrument of this type as yet devised gives clear, single, and unequivocal results, as is shown by the review of personality questionnaires by Albert Ellis.[31]

The high school and college counselor must depend primarily on interview, autobiography, activity records, observation, and test results, all pooled and weighted, to make his judgments as to the quantity and quality of social aptitude or ability present in a given counselee. These data, combined with cautious use of personality inventories, must be clinically interpreted to determine strengths and weaknesses in social effectiveness. One thing is certain, we do not have at this time any short cuts which will give us even approximate answers in judging the aptitude for, or ability in, handling human relationships wisely.

Clerical Aptitude and Ability

The efficient recording of information such as dates, names, addresses, places, persons, activities, movements, sums of money, bills, accounts, descriptions, and hundreds of thousands of items about people, events, and things and the maintaining of these records in orderly fashion for ready reference provide work for millions of men and women the world over. They are a major aspect of man's attempt to profit from what has gone before, to know what has been done, to build present and future upon the successes and mistakes of the past in all his activities. So great has grown the flood of paper records that some viewers-with-alarm hold that our civilization may be drowned and buried by it. The documents of the American government's civilian and armed services in World War II alone are said to be enough to stack the entire Pentagon building in Washington to the

[31] Ellis, Albert. "The validity of personality questionnaires," *Psychological Bulletin,* 1946, 43:385–440.

roof. Vast numbers of persons devote their adult lives to typing, sorting, filing, digging out and refiling, mailing, receiving, copying, summarizing, indexing, eliminating, and destroying clerical stuff. It is, therefore, important that the educational-vocational counselor know as much as he can about the aptitudes and abilities labeled conveniently, and oversimply, "clerical."

Like other abilities treated in this book, clerical ability is no simple, single trait but is, on the contrary, a complex configuration of aptitudes, attitudes, skills, and interests. One of its basic elements is the ability to make rapid accurate discriminations of minute differences and similarities in the order of numbers, of letters, and of words. A person with low-order ability in this field would frequently confuse, while one of high order would almost never mistake, the following:

John L. Johnson,
3232 North Western Ave.
S. Pasadena, California

and

John I. Jonson,
3232 Northwestern Ave.
N. Pasadena, California

While to the uninitiated this may seem of minor importance, in fact it may involve serious matters of even life and death. Confusion of the two may mean that one gets the other's month-end bills. A reporter may publish a story accusing Johnson, who is a respected banker, of committing a murder done by Jonson, a known criminal. Or Jonson may be drafted into the army, despite his essential deferment, while Johnson is deferred for many months. Or Jonson's checks may be deposited to Johnson's account. Many lives have been fouled up by persons of low clerical ability.

Added to this power of fast and accurate discrimination of minutiae are many other related requirements, the particu-

lar combination needed depending on the nature of the job to be done. Usually these include a fair mastery of the mechanics of English, spelling, punctuation, and grammar which, in the case of the highly paid top administrative secretarial position, may extend to the power to write clear, fluid, creative letters and reports out of the boss's few rough notes. They include also a sound working knowledge of the specialized vocabulary of the field in which one works, so that errors will not be made such as that of one clerk who wrote "geneology" when her doctor employer dictated "gynecology." Of equal importance is skill in arithmetic, for a slip in addition or subtraction might mean the sending of half the needed men into battle or result in the loss of $1,000 to a businessman because of an error in price quotation. Mechanical ability in combination with these mentioned is of increasing demand, as machines such as stenotypers, addressographs, comptometers, billers, scorers, microfilm and other photographic reproducers, and analyzers are more and more substituted for hand operations. Listening and speech skills are required for those who must use dictating instruments. Social intelligence is a must for those whose clerical tasks include their meeting customers, clients, and colleagues of the employer. Further, in all cases, there is needed a measured interest pattern congruent with whatever combination of these components of clerical occupational behavior is demanded by the job. Finally, it is obvious that various levels of academic intelligence must be present with clerical ability if the possessor is to function in particular kinds of clerical tasks.

In considering the nature of clerical aptitudes and abilities, W. V. Bingham[32] credits Marion A. Bills with the following description of what the clerical worker does. "Clerical duties in a modern office . . . include the gathering, classification, and preservation of data of all sorts, and the analysis and use of these data in planning, executing, and determining the results of operation."

[32] Bingham, *op. cit.*, p. 143.

Donald Super,[33] taking a position contrary to that of the authors, defines clerical aptitude in terms of a relatively unique trait, quite restricted in nature.

> There appears to be only one aptitude, in the strict sense of the word, which is important in clerical work, is of little importance elsewhere, and might, therefore, be thought of as "clerical aptitude." This is number discrimination. . . . The ability to do this is little affected by training or experience in clerical work, or by age in adolescence or normal adulthood: it is relatively independent of [academic] intelligence.

The Minnesota Occupational Rating Scales[34] supply a definition of clerical work which is "By clerical ability is meant the ability to do rapidly and accurately detail work such as checking, measuring, classifying, computing, recording, proof reading, and similar activities." Lennon and Baxter[35] constructed a check list of 90 statements concerning the duties of clerical workers. This check list affords insights into the factors included in clerical aptitudes and abilities. They found that they could predict from test scores the performance relative to such factors as understanding of work, errors in performance, quantity and speed of work, performance of multiple tasks, and unnecessary duplication in work effort.

Levels of Clerical Aptitude and Ability

The top level of clerical ability includes occupations of a professional or highly technical nature. The accountant, actuary, statistician, and administrative secretary are workers in whom are combined rare patterns of these abilities at the top level. The level is high also in academic ability. Although a college degree is not, as yet, always insisted upon to enter these occupations, one must come from the upper reaches of those with college ability to compete success-

[33] Super, *op. cit.*, p. 68.

[34] Paterson, Gerken, and Hahn, *op. cit.*, p. 21.

[35] Lennon, Roger T., and Baxter, Brent. "Predictable aspects of clerical work," *Journal of Applied Psychology*, 1945, 29:1–13.

fully with workers in these occupations. As has been pointed out by Strong, Darley, and others, professional-level interests of a particular patterning are necessary if one is to be satisfied and happy in this field.

The second level of clerical ability includes those workers with high school or junior college academic ability and, usually, training. Bookkeepers, stenographers, and operators of complex business machines are examples of the job outlets for clerical workers at this level.

The average, or routine third-level, clerk works at jobs such as filing, order clerk in a wholesale house, and mail sorter in a business establishment. Large numbers of people have sufficient clerical aptitude and ability to learn such duties or to perform them without extensive training. Jobs in the clerical field at this level are frequently threshold occupations for young workers, ceiling jobs for older workers, or incidental accompaniments to the duties of retail sales clerks and others in similar work.

Estimating, Judging, and Measuring Clerical Aptitudes and Abilities

Because of the range of their usefulness, the educational-vocational counselor must judge, estimate, and measure clerical aptitudes and abilities in the majority of his counselees, no matter what may be the policy of the school or college where he works. Some educational institutions consider clerical skills—such as typing, filing, and classifying—as tools essential to normal daily study, as well as to many occupations, for most students, while other institutions will have nothing to do with any of them since they consider these things as below the college or university level and as having no relationship to ivory-tower academic concerns Some institutions maintain extensive commercial curriculums, others have only theoretical economics departments. Hence if the counselor is charged with weeding out those who cannot profit from theoretical instruction his task is quite different from the one which confronts him in the se-

lection of students who may successfully major in the practical commercial curriculums. Because so many factors must be considered, no short test or test battery will tend to yield satisfactory results.

Barrett[36] reports an interesting study regarding the selection and counseling of liberal arts college students who wished to add clerical skills as job insurance, for fear that the general academic education would leave them vocationally handicapped. Selection was considered necessary because without it many students would ask for the work who could not profit by it enough to justify the effort and expense. She discovered that, by use of a test battery, she could make worth-while differentiations for that purpose between and among the students who would profit most and least. College grades in the clerical courses were used as the criterion of achievement. This study disclosed that number and name comparisons, tapping, dotting and copying, transcription of materials, spelling, and scores on an interest inventory aided appreciably in selecting those who would tend to profit from a course in shorthand. The number section of the Minnesota Vocational Test for Clerical Workers, and the tracing, dotting, and pursuit sections of the MacQuarrie Mechanical Ability Test were useful in selecting those for whom success could be predicted in typing.

Although test results can be helpful, counselors collecting data for aiding counselees to consider a career in the clerical field should, of course, make judgments from several types of data. Among these are

School grades—particularly the mechanics of English and simple arithmetic.

Scores from tests of academic ability.

Tests of clerical aptitude—number and name comparison, speed and accuracy in work samples closely related to routine clerical tasks.

[36] Barrett, Dorothy M. "Prediction of achievement in typewriting and stenography in a liberal arts college," *Journal of Applied Psychology,* 1946, 30:624–630.

Tests of clerical ability—typing, filing, and machine operation for those with some training and experience.

Tryout experiences—through business training, and typing for personal use, pitched at the appropriate school level.

Investigation of vocational interests in the attempt to identify those for whom the clerical field appears a suitable occupational terminal.

Estimates of social intelligence important to many clerical jobs at various levels.

The counselor should also be aware in his diagnosis and prognosis that, except for the professional and higher technical levels, this is a field largely dominated by women. The shift in the clerical field from hand to machine work must be kept in mind, and rapid development in such areas as statistics should be noted because new occupational outlets arise constantly out of such changes. To be aware of these outlets and of the training institutions where a high clerical aptitude counselee can get training on elaborate and costly machines, which are beyond the resources of the average school, is one of the duties of the competent educational-vocational counselor. Sometimes such specific training may be acquired in a commercial school or in a manufacturing concern which makes special clerical equipment. Obviously, there is much more to estimating, judging, and measuring clerical aptitudes and abilities than merely assigning a student who is having trouble with the academic courses or who "wants something practical" to the commercial curriculum to sink or swim.*

* Additional information regarding clerical aptitudes and abilities will be found in these references:

Bingham, *op. cit.*, pp. 142–165.

Crissey, William J. E., and Wantman, M. L. "Measurement aspects of the national clerical ability testing program," *Educational and Psychological Measurement*, 1942, 2:37–46.

Ghiselli, Edwin E. "A comparison of the Minnesota Vocational Test for Clerical Workers with the general clerical battery of the United States Employment Service," *Journal of Applied Psychology*, 1942, 2:75–80.

Artistic Aptitudes and Abilities

In the early days of America, our people were, in general, so compelled to pioneering in building the nation, exploring the West, exploiting our natural resources, and organizing our economic, political, and social structure that they had little time for or interest in artistic activities. Our ancestors, for the most part, also were steeped in a Puritanism that looked upon most such activities at best as a waste of time, at worst as deeply sinful. The rugged pioneer looked upon the musician, painter, dancer, actor, or writer as a "long-haired" and effeminate idler. The Puritan looked upon these as "immoral." Parents hung their heads in shame if one of their children persisted in exercising an aesthetic talent. In consequence, job outlets in the arts were few, employment uncertain, and pay poor. In the past fifty years or so, however, an extraordinary change has taken place. While the pioneer-Puritan attitudes still persist in some quarters, they have largely been swept away by scientific and technological developments which have exchanged machine for muscle power, vastly extended the leisure time of our people, stepped up communications, and thus released immense quantities of creative energy and the capacity to appreciate its products. High-speed printing has created a vacuum that can only be filled by increasing numbers of poets, novelists, and story and feature writers, devoting their lives to training for and producing literature; and with them, thousands of photographers, painters, and designers to create illustrations and alluring advertising. Development of new construction materials, plus the swelling demand for housing, made it necessary to build curriculums, departments, and schools of architecture, interior dec-

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Paterson, Donald G., and Darley, John G. *Men, Women and Jobs.* Minneapolis: University of Minnesota Press, 1936.

Paterson, Gerken, and Hahn, *op. cit.*, pp. 20–25, 88–93.

Paterson, Schneidler, and Williamson, *op. cit.*, pp. 205–209.

Traxler, *op. cit.*, pp. 62, 94–95.

oration, and many auxiliary services to make modern homes more beautiful. The growth of radio, motion pictures, and television as entertainment for the peoples of the world has opened up great areas of aesthetic production to hundreds of thousands of workers, with monetary rewards sometimes equaling those of the highest paid business and industrial executives. Radio and phonograph recording have brought a flood of new occupations for writers, actors, musicians. Television will obviously again extend employment in the arts. And all this does not begin to tell the story.

In the face of this dynamic growth of outlets for people with artistic aptitudes and abilities, research in analysis of the many aspects of the field and in identification of the combinations of intelligences, traits, and skills that may go into the successful performance in one or another has been minimal. The great majority of counselors think of occupations in the arts only when some counselee or other puts up to them the question "How do I break into the movies?" or "What chance is there for me in radio?" or "How about commerial art?" or "What are the opportunities in professional dancing? or the legitimate theater?" So alien have these questions and all that they imply appeared to be to "respectable" academic pursuits in school and college and to "practical" ways of making a living in business, industry, and the prestige professions, that it has been all too common counseling practice to shove these and similar questions aside and persuade the counselee, eager to shape his life plan around an artistic core, to abandon his ambition and turn to something more usual and conventional. In this evasion, counselors have been assisted often by the parents and friends of the counselee, whose thinking and feeling about jobs in the arts is still colored by the cultural hangover of Puritanism and pioneering.

While sounder patterns of approach to the problem must await much experimental research as well as clinical investigation and expanded occupational information, the authors consider it important to indicate briefly here some

of the general lines along which the general clinical counselor might structure his consideration of the matching of tasks, talents, and training in the various artistic fields.

Our first assumption is that most of the areas of operation of aesthetic intelligence may show, on critical examination, a four-phase differential division.

1. The first of these can be labeled, for convenience, *appreciation.* Appreciation seems to include primarily two elements: (*a*) interest, in terms of liking art or music or literature, of valuing them emotionally, and (*b*) the organization of the physiological multisensory systems of the body to receive and react to impressions of color, sound, movement, etc. Study of this division of the field is important to counselors for several reasons. It gives them clues as to what courses in appreciation of art, music, dancing, theater, movies, and literature might profit a counselee, enrich and enliven his intellectual work in school and college, serve as needed relaxation and relief from tensions—both during his schooling and later on the job—and widen his opportunities for acquaintance and friendship with others of kindred interests. Common observation shows us clearly that, in general, competence in scholarship and in working for a living is increased by adequate amounts and kinds of appreciative activities, just as, at the extreme, intensive and extensive experiments with art and music therapy for neurotic and psychotic patients have demonstrated effective healing power in many cases.

2. The second category of operation of artistic abilities may be called *interpretation.* In this category we have the performers of all sorts: the pianist who skillfully interprets Mozart or Debussy; the dancers who interpret a classical ballet or *The Green Table;* the actors who, on stage, screen, or radio do *Hamlet* or *Abie's Irish Rose;* the teacher of literature who rouses his classes to enthusiasm by his reading and illumination of the meanings of poetry, prose, and drama. It can readily be seen that, while ability to interpret one or another art form is here basic, the combinations

of aptitudes, traits, and skills that go into each are quite different one from another. Dancer and actor may both need agility, but perhaps of different orders. The dancer needs no training in voice and effective speech, while the actor must have the most and the best. The pianist needs high-order manipulative mechanical ability, while the English teacher needs little or none. It is clear from this brief summary that a vast amount of further study and research is demanded to define more sharply the constellations of abilities that go into each form of interpretation before general clinical counselors in educational institutions can do an effective job of helping counselees with these talents to find the courses of study and training and the occupational outlets for them.

3. The third important aspect of artistic aptitudes and abilities is the *creative.* Until comparatively recently, creative activity was conceived to be an untouchable, unanalyzable outflowing of genius in rare individuals unamenable to scientific study or to social or educational stimulation and control. In recent times, however, its nature and its dynamics have been subjected to increasingly careful scrutiny through interviews with successful composers, painters, poets, etc.; through observation of creators at work; through elementary school experiments with the release of creative energies by various progressive methods; and through projective devices and hypnosis. It is essential that the counselor familiarize himself with the literature in this expanding field if he is to deal effectively with many of his counselees and lend a hand to feeding into our culture a growing number of essential workers to keep the presses busy and to satisfy the demands of radio, movies, television, the stage, the concert hall, and the hundreds of other employers of people with one or another combination of creative abilities. It is not possible in the time and space allotted here to do more than sketch with utmost brevity some of the elements and characteristics of creative activity and, for the rest, to refer the reader to some of the more recent and fuller

treatments of it. Murphy[37] and Lowenfeld[38] appear to be the best general sources at this time for review. Murphy suggests that an individual may be identified as having aptitude for creative work by a high degree of sensitivity to a quite specific form of experience which is usually sensory; that he delights in these experiences, seeks more and more of them, is curious about their relationships, tries new combinations of them, and selects the most delightful to him; that this process results in a controlling drive and set of established habits. He sees the desire to create as almost universal but indicates that this desire is frustrated in one culture (see the above discussion of the pioneer-Puritan attitudes of earlier America) and released in another, depending upon whether society in its mores gives approval and status to the artist or withholds these from him. He points out that in each category of creative activity there must be a pattern of creative skills which, granted aptitude, must be built up to a high point of efficiency by continuous and persistent practice, and these must accompany high sensitivity. We may, for example, "have in mind" a stunning and beautiful picture, but if we cannot mix colors, stretch canvas, or wield a brush the picture is stillborn. Murphy further points out the necessity of stimulating experience such as parental example, direction, encouragement, and sometimes coercion, such as, also, good teaching and watching "masters" at work. He sees as another factor the patience to polish and refine after the first "frenzy" of creation is set down in rough form, a corroboration of the old definition of genius "that it is an infinite capacity for taking pains." He suggests finally that the psychologists and psychoanalysts are now making new discoveries in the processes of association which may be of the utmost later practical importance in counseling.

[37] Murphy, *op. cit.*, especially Chap. 19, "Creativeness," pp. 452–478.

[38] Lowenfeld, Viktor. *The Nature of Creative Activity.* New York: Harcourt, Brace and Company, Inc., 1939.

Lowenfeld, Viktor. *Creative and Mental Growth.* New York: The MacMillan Company, 1947.

4. The fourth area of artistic aptitude and ability may be named the *analytical.* This appears to involve a combination of certain kinds of high academic ability with interest in and sensitivity to one or another form of aesthetic activity and its products. From people with these combinations, we get the scholars and researchers in literature, music, drama, and the rest. Especially we get the critics who write the newspaper and magazine columns on the concert, the movie, the exhibition of painting and sculpture, or books on the history of art movements or of individual artists and their contributions to the culture of a time or a people.

The further refinement of our understanding of these four general types of artistic aptitudes and abilities, of their application to each different kind of artistic occupational activity, and of the relationships among them is essential if sound counseling is to be developed in this field. It is clear that one may be a highly competent appreciator and at the same time be unable to interpret, to create, or to analyze. It is equally obvious that one may be an interpreter of high order but no creator or analyst. And, as history, as well as a survey of contemporary professional workers, shows, it sometimes happens that one man or woman combines all four abilities at high level in a field such as music, being at once an appreciator, interpreter, creator, and sound critic.

Levels of Artistic Ability and Aptitudes

As with other areas of human interest, activity, and employment, not only does the concept of *field* apply but also that of *level.* In the field of appreciation of music, for example, we must consider both range and depth. In range, millions of Americans enjoy "popular" songs. They pick them up from radio and records, hum them to themselves. Millions likewise appreciate the seasoned favorites such as the well-known Christmas carols, "social" songs such as "Auld Lang Syne," and many another. Thousands thrill to symphony and opera. But many fewer thrill to chamber music. Some, in the "better" music prefer the classic,

some the "modern," composers. Few, however, have a range that covers the whole gamut from boogie-woogie and the "Basin Street Blues" to Wagner's "Ring" and Ravel's "Quartet." In interpretation, hundreds of thousands can thump out tunes on the piano for their own and their friends' amusement and pleasure. Many can earn a satisfactory livelihood playing for radio or local concerts, with perhaps some teaching on the side. Few attain the high professional level of a Paderewski or a Rubinstein, with world-wide prestige and very large income. The concept of level applies in all other aspects of aesthetic employment. There is, for instance, only one Disney, but hundreds of competent artists have worked for and with him, making first-rate incomes by drawing and filling in the transparencies from which his animated movies are made. For every professional architect there must be dozens of designers and draftsmen, for every best-seller novelist, a hundred pulp-magazine and house-organ writers, and for every top actor on screen, stage, or radio, there must be many minor ones. For each level of performance there is needed an equivalent level of aptitude and ability. For adequate counseling in this field, we require a great deal more research, job analysis, and occupational information than we now possess.

Making and Expressing Judgments of Artistic Aptitude and Ability

As is obvious from the preceding discussion of fields of artistic activity in school and employment and of the levels of aptitude and ability applicable to them, making and expressing judgments in this area of counseling is an exceedingly complex and difficult matter. A number of approaches may, however, be suggested.

Tests which have been subjected to any considerable analysis for validity and reliability are found only in art and music and these few are definitely limited to measurements of a few factors. Best known of the art tests are two: the Meier-Seashore Art Judgment Test and the McAdory Art

Test. The former consists of 125 pairs of pictures, one of each of which was painted by a master and the other altered. The latter is made up of 75 quartets of pictures, each set of four on the same theme. In each case the one taking the test judges order of merit. Since both tests are printed in black and white, the entire element of color is lacking. Nevertheless, ratings on both tests, since there is a low correlation between them, are useful if the proper norms are used and the counselor is cautious in interpretation. A. S. Lewerenz's Tests in Fundamental Abilities in Visual Arts, while as yet not adequately proved out, offer some possibilities for further development, since he is attacking a number of specifics, such as (1) recognition of proportion, (2) originality of line, (3) observation of light and shade, (4) knowledge of subject-matter vocabulary, (5) visual memory of proportion, (6) analysis of problems in cylindrical, parallel, and angular perspective, and (7) recognition of color.

In music, the best known test is the Seashore Measures of Music Talents, which consists of an album of six records to which the testees listen and respond with pencil upon test blanks. There are two series, one for unselected persons and the other for musicians or would-be students of music. The test is designed to measure sense of pitch, of intensity, of time, of rhythm, and of timbre and tonal memory. Jacob Kwalwasser has constructed two instruments: (1) with G. M. Ruch, called a Test of Musical Accomplishment, designed to measure the achievement of elementary and high school pupils in a typical music course in learning musical symbols and vocabulary, ability to detect time and pitch errors in familiar tunes, etc.; (2) a Test of Musical Information and Appreciation, designed to judge combined academic and musical achievements in a typical high school or college course in appreciation of music. It deals with composers, types of musical works, musicians, their instruments, and the tone production of each, and with musical forms.

Supplemental tests of value in making judgments of artistic ability for counseling purposes would certainly include rating on the Aesthetic Scale of the Allport-Vernon Scale of Values; the measured interests on the scales for Artist and Musician on the Strong Vocational Interest Blank; compared with the results on the Art, Music, and Literature scales of the Kuder Preference Record.

To these should be added all pertinent materials from the case history, the autobiography, and such interview probing as may be indicated. If the counselee's total picture suggests the wisdom of his undertaking training in one or another artistic field, further factors should be considered, depending upon the field and level. For example, some of the mechanical ability tests may be necessary, not only to get measures of space relationships for the plastic and graphic arts and architecture, but also to give some index of hand and finger skill if the art requires the playing of an instrument or the manipulation of sculptor's tools or paintbrushes. Some assessment of the counselee's agility must be made if his aim is to dance professionally or to act for stage or screen. Measures of academic intelligence and special abilities may serve to determine either type or level to be sought. And finally estimates of kinds and degree of social intelligence must be made, since the high-level practice of some of the arts requires a dominantly withdrawing personality, while in others considerable social skill is needed. In the light of all this it is clear that the general clinical counselor has an increasing responsibility to identify aesthetic intelligence, latent artistic aptitudes, and present abilities if he is to serve many of his counselees and is to meet the growing demand in the employment market for persons with many varieties of talents.

Chapter 8. EDUCATIONAL—VOCATIONAL INTERESTS

Interests

The fundamental reason why general clinical counselors and researchers in personnel work have devoted increasing attention to "interests" lies in widespread common observation of workers in different fields. Such observation reveals simply that, granted the presence of abilities commensurate with the demands of the job, workers are successful, happy in, and satisfied with their jobs if they feel at home and at ease with the things they have to do and with the people with whom they have to work. This feeling of at-homeness arises from having strong and large areas of common interests which spread far beyond the borders of on-the-job behavior. It is easy to see that, for example, if we move among a group of preachers who are deeply satisfied with their work and effective in it, they are individually and as a group characterized by generally similar behavior, feelings, attitudes, speech habits, reactions, and ways of viewing the world. They not only concern themselves with the business of pastoral work, with the preparation and delivery of sermons, with the raising of money to pay their salaries and to build new churches and extend their services, but they tend to act, think, and feel, in most areas of activity, like one another. They prefer much the same types of leisure reading, the same kinds of sports and games, the same sorts of jokes and stories, music, travel, friendships, etc. If, as observers, we move suddenly from association with preachers to hobnob, say, with horse-racing stablemen,

liquor salesmen, or ballet dancers, we are struck at once by the marked differences in the interests of each group. We may readily and quite accurately conclude that a successful worker in one of these occupational sets would indeed feel like a fish out of water if he attempted to carry on the job of another. A preacher, for example, might have all the fine build, muscular coordination, sense of rhythm, and timing of a potentially great ballet dancer but his interests would wholly inhibit him from trying to be or succeeding in becoming one.

One of the most important functions of the counselor in education or industrial practice, therefore, is the helping of individuals to match their aptitude and ability patterns with their interest patterns. Personnel workers are familiar with the large number of cases in which potential aptitudes never are developed because the individual has little interest in or negatively rejects behaving as his aptitudes might permit him. In education we are constantly impressed by the great numbers of students who complete, or partially complete, special training, often at a high performance level, and then make little or no use of this training after graduation. Men and women train themselves to be physicians, lawyers, and engineers, then, within a few years, find happiness in a field perhaps quite foreign to the specialty in which competence has been obtained. For example, the authors know a man who went to the master's degree in civil engineering, practiced it for ten years, and is now a distinguished surgeon; another, graduated as a dentist, is a successful distributor of motion pictures; a former physician manages a large paint company. Thousands of women train in a variety of job fields and never use their skills and knowledges. Many variables are responsible for such waste of individual time and energy, but one of the chief causes is lack of impelling interests.

Although research in the fields of interests, life goals, and motivation has been widespread, the general clinical counselor, concerned with educational-vocational problems, is

fortunate in having the major contributions regarding vocational interests concentrated in a relatively small number of sources. Omitting early research articles, the counselor can turn to Fryer[1] for a comprehensive review of major investigations in the field of interests prior to 1931. Strong[2] happily did not repeat the work of Fryer, but instead followed through from where Fryer left off to 1943. In addition to these works, several important supplementary publications have appeared. Darley[3] published his Clinical Aspects and Interpretation of the Strong Vocational Interest Blank in 1941. Super[4] contributed his Avocational Interest Patterns: A Study in the Psychology of Avocations in 1940, followed by his excellent review of Strong's book in 1945. Carter's[5] monograph appeared in 1944. Berdie's[6] review of the field was published in 1945. The 1946 manual for the Kuder Preference Record[7] has given us additional valuable information regarding this widely used interest inventory.

The story of the development of judging and estimating the educational-vocational interests of men and women is too well told in the sources cited to merit treatment in this

[1] Fryer, Douglas. *Measurement of Interests.* New York: Henry Holt and Company, Inc., 1931.

[2] Strong, Edward K., Jr. *Vocational Interests of Men and Women.* Stanford University, Calif.: Stanford University Press, 1943.

[3] Darley, John G. *Clinical Aspects and Interpretation of the Strong Vocational Interest Blank.* New York: Psychological Corporation, 1941.

[4] Super, Donald E. *Avocational Interest Patterns: A Study in the Psychology of Avocations.* Stanford University, Calif.: Stanford University Press, 1940.

Super, Donald E. "Strong's Vocational Interests of Men and Women," *Psychological Bulletin,* 1945, 42:359–370.

[5] Carter, Harold D. *Vocational Interests and Job Orientation.* Stanford University, Calif.: Stanford University Press, 1944. *Applied Psychology Monographs,* No. 2.

[6] Berdie, Ralph. "Range of interests," *Journal of Applied Psychology,* 1945, 29:268–281.

[7] Kuder, Frederick. *Manual for the Kuder Preference Record.* Chicago: Science Research Associates, 1946.

book. We can devote our attention to the nature of interests and to the tools and techniques for determining their range and intensity.

The Nature of Educational-Vocational Interests

The reader will find detailed discussions of the nature of educational-vocational interests in the sources to which we have already referred. Against this background we may project a working hypothesis on which the counselor can base his clinical judgments. First, we may note the various concepts of interests on which the psychologist has predicated his attempts to judge, estimate, and measure them.

Fryer,[8] using the rubric "Present Day Conceptions," states:

> The measurement of interests, however, is making new distinctions. During the last ten years of research, subjective interests have come to be regarded as complex configurations of feeling experience, and the driving force of the experience is no longer considered to be a part of the interest factor being measured. The motivation factor in experience is considered separately. The criterion of interest is thought of as the feeling.

Strong presents an impressive array of data supporting his measurement of interests but avoids a concise statement of their nature.[9] In summarizing Chap. I, "The Nature of Interests," he asserts that an interest is not a separate psychological entity, but merely one of several aspects of behavior. He considers both acceptances and rejections of the various items in his inventory as important, on the assumption that interest includes the things we despise as well as those we like and that we are disinterested only in things and areas which rouse no emotion of either sort. This is consistent with his sound emphasis on the need for pattern interpretation of multiple scores and avoidance of interpreting single scores alone.

[8] Fryer, *op. cit.*, p. 463.
[9] Strong, *op. cit.*, p. 23.

Darley[10] supports the hypothesis that interests are by-products of the personality and its development and maturation. His long experience in using this instrument clinically with thousands of cases and his research in this field have led him to this position. He rejects the assumptions that interests arise chiefly from successful behavior which wins social approval and that interests develop by recapitulation. The phenomena of lifelong consistency and the tendencies for interests to become less variable with age are cited in support of his stand.

Super[11] makes the point that "in spite of more than twenty years of fruitful study, no adequate standardized terminology has come into general use to denote these different types, levels, or degrees of interest." For purposes of this chapter on interests he standardizes terminology by referring to superficial and transient interests as *specific interests:* for broad categories of interests he uses the terms *basic* and *underlying;* the more fundamental kinds are labeled *drives;* strength or depth of interest is termed *degree of interest.* He considers *specific interests* as the triggers, or specific stimuli, which release activity to relieve tensions by giving satisfaction. Specific interests which satisfy a drive by various types of tension release are varied, while the drive itself remains relatively constant. He is in substantial agreement with Strong's position that interests result from an interaction of hereditary and environmental factors which crystallize, or become stable, with increasing age. This is not in conflict with Darley's conception of interests as a by-product of personality development.

Carter's[12] view of the nature of interests includes the various conclusions reached by selected authorities. He states that

> A number of studies by Lentz and Nickel and by Carter contain explicit suggestions that interests are properly regarded as

[10] Darley, *op. cit.,* pp. 56–57.

[11] Super, Donald E. *The Dynamics of Vocational Adjustment.* New York: Harper & Brothers, 1942. P. 82.

[12] Carter, *op. cit.,* pp. 9–13.

traits of personality. The series of studies from the University of California, . . . indicates that interests are not independent of intelligence, although they are primarily affective phenomena.

The lack of close relationship between interests and abilities is clearly seen, but its significance has not been fully appreciated. . . . The persistent view that interests need not be measured directly but should rightfully be inferred through studies of abilities continues to find expression in popular articles.

. . . Many such apparent contradictions indicate that a number of variables including age, specific experiences, social and economic group differences, and occupational experiences must be studied more intensively if we are to understand the influence of each upon the development of vocational interests. (P. 12.)

Gardner Murphy[13] defines interest in the singular as (1) "The attitude with which one attends to anything; the feeling accompanying attention"; and in the plural, (2) "interests are dispositions defined in terms of objects which one easily and freely attends to or which one regards as making a difference to oneself." Relating interests to canalizations and dominant conditioned responses he says:

Interests also behave like dominant conditionings. Data on the continuity of interests, which show a rather high degree of instability during the second decade of life, indicate that in the young adult this set of symbols has taken on (within the ordinary rather constant environment) almost the fixity—even the rigidity—of the fundamental language habits themselves. (Pp. 719*ff.*)

He believes this stiffening and setting of interests becomes intelligible if thought of in terms of the theory of overlearning, which makes of a habit or attitude overlearned a thing highly resistant to the effects of disuse and rustiness. He goes on: "Interests—in work, in hobbies, in games, in books—are overlearned responses in this sense, and they stick, consequently they play a huge role in personality consolidation."

[13] Murphy, Gardner. *Personality.* New York: Harper & Brothers, 1947. P. 989.

The approach of Kuder has differed from that of Strong in certain respects. Simply stated, Strong's understanding of the nature of interests grew from the building and use of his instrument with carefully identified occupational groups at the professional levels. Factors being measured were determined experimentally after these selected groups were measured and the results pooled to yield desired points of reference. The use of factor analysis and other correlational procedures resulted in broad areas, or families, of occupations based upon occupational norms. Kuder,[14] by a logical inspectional method, derived paired preference items which were statistically related and grouped them into nine broad, arbitrarily named, occupational areas. His original norm group was 500 Ohio State University students in the years 1934 and 1935. The application of his method to occupational groups of adults came at a later date. He does not formulate a clear statement of the nature of interests or preferences.

A summary of the findings of various investigators as interpreted by the present authors is as follows:

1. Interests are an aspect of personality development shaped by both hereditary and environmental factors.

2. Long-range, stable, occupational interests emerge during the early teens, but mature interest patterns are not fixed for most individuals until an age of approximately twenty-five years.

3. Interests are not necessarily closely related to aptitudes or abilities.

4. Interests probably cannot be created *de novo* and in a short time merely by the classroom presentation of varied and vicarious experiences to youth. Such exposures may possibly, however, start the development of a new zone of interest, help to fix existing interests, or uncover latent ones.

5. A strong motivation toward certain types of occupational or avocational behavior is expressed by a wide number of responses to an extremely wide range of stimuli.

[14] Kuder, *op. cit.*, pp. 26–27.

6. Interests, as aspects of personality and as employed by the general clinical counselor, involve both acceptance and rejection of possible lines of activity. For example, the typical worker with processes and things (mechanical interests) obtains interest scores which are negatively related to scores which measure a liking for persons and social situations.

7. The estimated, judged, or measured interests of secondary school and college students in an occupation seem to them to be and in fact often are quite unrelated to the training program they must take to prepare them for employment in the occupational family in which they have an identified dominant interest.

8. A legitimate interest in an occupational outlet often has little effect on grades earned in the curriculum leading to that outlet. Much of the training program in a medical school may be largely quite unrelated to the particular aspects of medical practice toward which the interest is expressed.

9. Vocational and avocational interests appear to run in similar directions for a large proportion of individuals.

10. The interests of invididuals tend to become less varied with increasing age.

Judging, Estimating, and Measuring Interests

One of the counselor's most difficult tasks is to help the counselee arrive at a valid and reliable estimate of his vocational interest pattern and to help him see and assess this pattern superimposed upon, and integrated with, the aptitude and ability profile. There is no one simple, reliable method of arriving at the occupational families in which a given individual will be reasonably happy and successful in making optimal use of his aptitudes and abilities. Counselors have been searching for a workable solution to these problems for decades, and man for centuries. Several difficulties must be overcome before the counselor and counselee can arrive at a common ground of understanding which

will permit intelligible communication concerning these complex dynamic patterns and their bearing upon the choice of and achievement in courses of study and training and the further selection of, and success in, an occupation.

A first major difficulty is that of the common tendency to think of specific job labels when one speaks of interests. Usual statements of laymen are phrased in terms of interest in sales work, medicine, engineering, office management, toolmaking, railroad engineering, or school teaching. Such statements tend to be at once too specific and too vague—specific as to, say, teaching but vague as to school level, subject to be taught, etc. The field-level approach is both more logical and psychological. Counselors must either initiate the counselee into thinking in these frameworks by a one-to-one seminar in matching talents and occupational information or use the specific statement of the counselee ("I want to be an engineer") to introduce the field-level concepts in a less direct manner. Group orientation programs which prepare the way to thinking in these terms can be great time savers for the counselor.

A second difficulty, related to the first, is the counselee's unfamiliarity with patterns of acceptance and rejection. He cannot be expected to know that certain claimed interests are mutually exclusive of others claimed at the same time, if we accept interests as indicators of personality structure and of potential school and work success. For example, it is not at all unusual to have a boy claim technical interests at the same time that he describes enjoyable experiences related to business contact and social welfare. He may even express a strong dislike for mathematics, essential to technical achievement, and tell of his dismal experiences with this field of knowledge in the classroom.

A third difficulty is the counselee's lack of knowledge of himself as an individual compared to successful workers in various occupational groups. The log-cabin or office-boy-to-president tradition is strong in the United States. A belief that "anyone can do anything he really wants to, if he

only tries hard enough" is widespread. The issue is confused further by the notion that in a "free" America "anyone who wants to can get or make a chance to try anything." In the face of these firmly held cultural myths, the counselor meets many kinds of resistance. His right to tell a counselee what he can, must, or should do is legitimately questioned, sometimes with great heat. He must walk a verbal and emotional tightrope in his explanations of kinds and levels of interests and abilities and of how these operate to restrict and confine the overweening ambitions of all of us, even when we are citizens in a democracy and presumably committed to loosely defined "free" enterprise. The reader is referred on this point to the discussion of the idealized image in Chap. 2.

A fourth difficulty grows out of the first three. Counselees hear what they want to hear. The experienced counselor gradually becomes hardened to the constant stream of scuttlebutt reports of what he is supposed to have told his counselees. If the counselor has tentatively discussed technical occupations and used a number of specific occupational outlets as possible examples, the counselee is quite likely to report that the counselor has told him he has the interests and abilities of a laboratory technician, engineer, or surveyor. If, however, one of these appeals to him more than the others, only that one is remembered and reported. Many counselors attempt to counter this human tendency by recapitulating and summarizing on paper what they said in the interview and giving the counselee a carbon copy to take with him!

Despite these and other difficulties, competent counselors annually help thousands of people to reach an understanding of their vocational interests and the relationship of these to their abilities and of both to schooling and employment. Because the counselee usually does not have the information to arrive at sound estimates of his interests, the counselor must act as a trail marker to help him. Counselors have three general approaches to diagnosing occupational in-

terests: observation, claims of the counselee, and measurement. We shall consider these briefly in the closing pages of this chapter.

The Role of Observation in Diagnosing Occupational Interests

Observation is of two orders, direct and indirect. *Direct observation* is seldom a tool readily available to the counselor. He has too heavy a case load, with his too many counselees doing too many things at the same time, to make this a practicable method. Even when the opportunity for direct observation presents itself, as it occasionally does, interpretation of what is observed is difficult. Most small boys tend to be interested in mechanical operations and objects. This may be a cultural or an individual development. If we can observe in one person a consistent pattern of liking for scientific and mechanical pursuits over a long period of time, plus his effective dealing with increasingly complex materials and concepts, certain judgments can be made. This is particularly true if the counselor has had enough opportunities for observation of many other boys in this age group to permit him to establish fairly reliable, though subjective, norms. When we deal with girls our problems are increased because of our quite rigid cultural mores. Girls receive a different type of home training, often utilitarian in nature because of the probability of homemaking as a socially desirable and personally satisfying vocational terminal. There is little conclusive evidence that direct observation aids greatly in the process of helping individuals to find their interests at an early age, despite the conclusion jumping of many parents that because a youngster plays with a steam shovel or construction toys he will grow up to be an engineer or because he cuts up frogs at age six he will be a surgeon at thirty.

What of direct observation and the working adolescent or young adult? Here, too, we are faced with difficulties in interpretation. Adolescents and young adults are usually engaged in threshold jobs at the semiskilled, unskilled, or low

personal service or distributive levels. Even when they express interest in what they are doing, one must draw off his assumptions carefully because the interest expressed may actually lie in something other than the constellation of duties performed. Examples of these corollary stimuli, frequently mistaken for job interests, are the satisfaction of making and spending one's own money, freedom from home apron strings, the feeling of being grown up and responsible, or joy in being on the way to the achievement of goals to which the present job is recognized and tolerated only as a first step but not as a desirable end in itself.

Indirect observation results in information collected from the counselee, his parents, siblings, friends, and teachers regarding his attitudes toward occupational activities. The autobiography and occupational history have often proved sound methods of obtaining indirect observations. The anecdotal record accumulated over a period of years is also a fruitful method. In some educational institutions, teachers' interpretive remarks used in reporting student progress are useful in determining likes and dislikes of an individual. Parents can help by giving a developmental description of hobby activities over a period of time. Again, however, we must proceed with caution. An academically bright boy or girl who has sound study habits will tend to get top grades in any subject-matter area offered in the secondary schools or colleges. The influence of hero worship, of an admired friend, or a particularly well-liked group of associates may lead such an individual into temporary interests and activities which are dropped when the stimulation which roused them disappears. If we properly analyze the motivations which have led to behavior indirectly observed, it is possible to obtain information helpful in estimating interest patterns.

Claims of the Counselee

The literature in this field is filled with references to individual claims of interests in vocations. In the past many workers totted up the totals of the occupational labels se-

lected as of major interest by school and nonschool populations, and they and their readers drew many false conclusions from these figures. More recently, much more sophisticated and rigorous studies have been made with refined statistical and analytical techniques. Darley[15] gives a good example of this type of study. His general conclusions tend to be in agreement that claimed interests are invariably too unreliable and invalid to be accepted at face value without checking by more objective measures. This appears true whether the claims are in terms of occupational labels or of field and level concepts. Strong[16] reviews many of the findings concerning *claimed* as contrasted with *measured* occupational interests.

The counselor must, therefore, be extremely careful in accepting counselee claims of interest as valid. If, as some institutions and some counselors do, we insist that students must make career choices in order that they may be assigned to a curriculum, they will make them. But almost without exception the choice will be one which carries social prestige and without regard to measured interests or abilities. If we do not apply such pressure, fewer counselees will choose either by fields or labels. And, if we let it be known that "no choice" is a sound judgment for many counselees, especially in the younger age groups, we shall tend to get a greater number of "no choice" responses. Totally to disregard counselee choices is poor counseling practice. To accept such choices blindly is equally faulty. Critical evaluation of counselee choices, in the light of direct and indirect observation and measurement, is the only sound approach.

The Measurement of Interests

The matter of measured interests has been given more attention from the experimental standpoint than have the other methods of judging and estimating interests. The

[15] Darley, *op. cit.*, pp. 21–25.
[16] Strong, *op. cit.*, pp. 28*ff*.

astonishing amount of research done upon the Strong Vocational Interest Blank, particularly by its author, who has devoted his own professional lifetime and has directed the thought and energy of many of his graduate students to the instrument, makes it almost unique in the field of measurement. To a lesser extent Kuder has given a parallel single-minded attention to his Preference Record. With such concentrated attention by competent psychologists with a direct interest in specific instruments, and with the heavy contributions of other researchers, we have unusually good and sophisticated tools for measuring interests.

The reader is urged to review Carter's[17] summary of interest measurement to 1943. Among his conclusions are the belief that interests are being best studied as aspects of personality; that they are developmental in nature and that a developmental approach is necessary for their full understanding; that the measurement of vocational interests is about as reliable as the measurement of academic intelligence by group tests; that interest tests possess greater validity than is generally credited to them; and that measured vocational interests are pertinent to vocational choices.

Many experienced clinical counselors feel that interest inventories are among the most difficult measuring instruments for the beginner to interpret. Not only are the better inventories the result of complicated statistical concepts and devices but also, because of their affinity to other types of personality measurement, they present problems of interpretation beyond the reach of the average counselor. A fuller appreciation of their complexity can be gained by reading Strong's *Vocational Interests of Men and Women.* Even the soundly trained and long-experienced counselor finds that he must continually exercise caution in interpreting interest measurements.

With the many interest inventories now available to counselors the following precautions should be observed in selecting and employing interest inventories:

[17] Carter, *op. cit.*, pp. 68–69.

1. Interest inventories should be chosen with regard to the age and sex of the group or individual with which the instrument is to be used. The Strong Vocational Interest Blank is an excellent instrument when the results are obtained from adults or young adults. It is not appropriate for investigating interests of youth much below the age of seventeen.

2. Interest inventories should be selected to serve best the purposes of the counselor. A group program can well utilize the Kuder Preference Record as a stimulus to thinking about interests and ultimate vocational choices. This instrument is useful at ages well below those for which the Strong blank is intended.

3. Interest inventories should usually be selected in terms of the validity and reliability of the scales included in the instrument and the norms upon which it is based. In some instances a promising instrument is useful only when new norms are established on a local population,[18] for a special purpose. If the purpose is to help to select occupational outlets for counselees, the norms, or points of reference, should be appropriate to the age and ability level of the counselee and the jobs available in the area of his probable employment. If occupational norms are supplied by the test makers it is wise to use the criteria recommended by Fryer[19] and Strong[20] that the minimum number of cases for standardizing an occupational key be 250 and the optimal number be 500. Since, further, mere numbers do not guarantee that sampling has been adequate, attention should be given to the method of sampling used. If the norms are based upon samples of students in secondary schools or colleges, the question of sample purity must be raised. A num-

[18] Young, C. W., and Estabrooks, G. H. *Young-Estabrooks Scale for Measuring Studiousness by Means of the Strong Vocational Interest Blank for Men.* Stanford University, Calif.: Stanford University Press, 1936.

[19] Fryer, *op. cit.*, p. 91.

[20] Strong, *op. cit.*, p. 131.

ber of examples will illuminate this principle. A sample of 1,000 college freshmen is likely to include a number of individuals who have chosen curriculums in which there is no joy for them and who may, therefore, skew the results. Freshman engineers in a university almost always include in their number many who do not have the measured interests of engineers and who will, therefore, be unhappy, unsuccessful, or both in that course of study and whose responses to the interest inventory will reflect their misery and distort the norms. The problem is more acute when secondary school norms are used, based, for instance, upon students in high school commercial studies, since the group will include many who do not belong in this kind of training. It is, therefore, a particularly dangerous practice to use the results from interest inventories based on secondary school norms to predict occupational happiness in the jobs which follow completion of training. On the contrary, unless the norms are built upon scores from which are eliminated all but those of former students who have been employed and have found themselves happy and satisfied with their occupational duties, we have little justification for placing dependence on the results of the test for purposes of helping our present counselees to make occupational choices which are supposed to be stable and lasting.

4. Interest inventories should be selected which have valid points of reference, another aspect of the norm problem. It has been shown by Strong that when we compare specific professional occupational scores on his blank with a norm composed of professional workers, such as doctors, architects, etc., these professional workers show significantly separated interest patterns. If, however, we use these professional norms in the attempt to separate or differentiate the interest patterns of semiprofessional or skilled workers, the differences do not stand out. Or, if this procedure is reversed and the scores of semiprofessional or skilled workers are taken as a point of reference, these will separate people in these occupations from each other in terms of their meas-

ured interest patterns, but this new point of reference will make the professional occupations more or less indistinguishable.

5. Interest inventories should be selected to yield stable occupational interest *patterns.* Strong[21] and Thurstone[22] have analyzed the Strong Vocational Interest Blank results by factor analysis and related statistical techniques. They found that four to five factors accounted for the major aspects of interests being measured. Darley[23] adapts the findings of Strong and gives the following interest types obtained from the Strong Vocational Interest Blank for Men. He also reports an unpublished factor analysis of the women's blank done under his supervision. The categories found are labeled as follows:

Men	*Women*
1. Technical	1. Technical
2. Verbal or linguistic	2. Verbal or linguistic
3. Business contact	3. Business contact
4. (*A*) Welfare or uplift	4. Welfare or uplift
4. (*B*) Welfare or uplift	5. Nonprofessional interests
5. Business detail	
6. Certified public accountant	

Kuder, as has been indicated, arrived at his areas by a different method. Despite several studies regarding the comparability of the two inventories, it has not yet been shown that they are measuring the same aspects of personality under headings which seem to be comparable.

Synthesis

There is no single method by which one can estimate, judge, or measure human occupational interest with certainty. The counselor who is willing to accept observation, counselee's stated choice, or the results of a single interest

[21] Strong, *op. cit.*, p. 140*ff.*

[22] Thurstone, L. L. "A multiple factor study of vocational interests," *Personnel Journal,* 1931, 10:198–205.

[23] Darley, *op. cit.*, pp. 12–13.

inventory alone is rash indeed. The best results appear to be obtained when an experienced counselor uses subjective clinical weightings for all sources of data and arrives at conclusions with the counselee which are consonant with most of the variables which complicate counselee choices. Attitudes toward occupational experiences and hobbies, persistent behavior logically related to occupational outlets, direct and indirect observation, and the results from interest inventories, all contribute to varying extents from counselee to counselee. If pressure of time forces us to use a single method, most counselors prefer to depend upon a well-standardized measurement because of its greater demonstrated reliability and validity. Few counselors, however, can so depend with an easy conscience and hence are careful to qualify and hedge their recommendations and declare them tentative.

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Chapter 9. COLLECTION OF DATA FOR A SYSTEMATIC CASE STUDY

In Chap. 5 we considered the *systematic case study* as the major synthesizing tool with which the counselor focused all of the other clinical tools and techniques on the analysis of the problems of his counselee and on the diagnosis of his abilities, interests, and other personality traits. Because of the importance to the counselor-in-training of a clear understanding of the case study for general clinical counseling, this chapter and the one which follows are devoted to the methodology of assembling pertinent case data and applying these data clinically in the counseling situation. Before turning to the major objective of this chapter, a short review of general considerations surrounding the systematic case study *in dealing with educational-vocational problems* is in order.

To some readers who are planning a professional career in general clinical counseling, the materials which follow will appear to involve enormous amounts of time for analysis, synthesis, diagnosis, and prediction. In fact for the beginner it always does so. But his reward comes finally, after patient and sometimes tedious, confusing, and frustrating work, in a sudden clarity of insight, a falling into place of the fragments of a total and satisfying picture. This Williamson has referred to in his writings and his speeches as the "click" phenomenon. His point is one familiar to most professional counselors. With experience, the counselor discovers that what seem, at first, a bewildering confusion of apparently unrelated details sort themselves eventually into meaningful clinical patterns. The

first case one counsels is a disturbing experience. The counselor in this situation who does not wonder what he can contribute and who should be counseling whom is indeed unique. However, after a large number of cases, perhaps twenty-five or perhaps a hundred or more, have been counseled, there will come a time when the data for a certain case will on first full reading form a clear, meaningful pattern even with complex problems involving complicated data. The counselor's reaction will be a healthy one of feeling that "It just can't be" and "How did that happen? Can I do it again?" When this occurs he usually undertakes a painstaking reconsideration of all the variables involved and finds that they yield the same answers. After this point has been reached, and it will vary from counselor to counselor, the search for clinical meanings of familiar types of information will no longer be the time-devouring struggle for understanding it once was. A legitimate and relatively high rate of speed in diagnosis will be attained. It should be noted, however, that for most counselors this much-to-be-desired competence is not possible without their undergoing supervised experience over a period of time in which counseling is a constant day-by-day, week-by-week experience. It is seldom attained by the casual, part-time amateur counselor in training.

A danger lies in this "click" phenomenon. This is the hazard of becoming arrogant, of feeling that answers will always be this easily found, and this leads to the error of considering similar data to have comparable meanings from case to case and ignoring the fact that individuals and situations can never be identical. This is one of the reasons why a reasonably limited counselor load is important. When overloads occur we tend to look for short cuts and to make stereotyped interpretations of clinical data as a tempting, and often unrecognized, method of attaining speed, of getting our work done, of relieving the pressure of a backlog of cases clamoring for help. The number of counseling interviews in a day or school term is not to be

considered in the same light as the number of units a piece-worker turns out on an assembly line or like mass-production dentistry which demands so many fillings per day regardless of size or difficulty. Instead it is comparable to the doctor's job, one patient needing a single aspirin, another a major operation and months of care. The authors have known many counselors who recognize in themselves and fight against this tendency to fall into stereotypes at various stages of their progress toward competence. This common experience may indicate that there are plateaus of learning from which one might trace professional growth. In any case, a misinterpreted case history is no help to a mishandled counselee, and the danger of mistaking stereotyped conclusions for true "clicks" must be carefully avoided.

In Chap. 1 the point was made that there is no substitute for an internship under sound supervision. While a large number of our best counselors in the past arrived at professional status by a trial and error method, most of them admit to being uncomfortable at the memory of some of the inevitable bungling which occurred. True, even a decade ago, there were too few clinics for interns in general clinical counseling. There should be no need now, or in the future, however, for the trainee to miss the opportunity, since major universities are increasingly arranging for internships in their own counseling systems and cooperating with high school, junior college, and industrial and business personnel officers to provide them. In summary, the trainee can benefit by the supervision and direction of experienced persons. He can sharpen his tools in staff conferences on his own and others cases, and he can become a better diagnostician by case reading techniques followed by discussions with other trainees and clinicians. Assuming that the reader has a working knowledge of counseling tools and techniques and that his experience has prepared him for handling student problems, let us now set the stage for working through a composite, hypothetical case.

The Setting

Joseph R. Williams is a second-semester freshman in Y University. The university is a fairly large one, with 12,000 regularly enrolled students. Its largest undergraduate college is Liberal Arts, which is charged with the responsibilities of providing general education in its lower division and specialized majors in many scholastic fields for its upper division. The university has a graduate school and provides professional outlets in education, medicine, law, the physical sciences, psychology, sociology, and numerous other specialties growing out of departmental offerings.

The university has a reasonably well-coordinated formal student personnel program, which includes a student counseling center. This counseling center is staffed by clinical psychologists holding Ph.D. and Ed.D. degrees or their equivalent. Predoctoral interns who hold masters' degrees aid in many of the working operations of the counseling program. The psychometric division orders, administers, and analyzes tests and collects data both from individual testing and from the various group testing programs, including those required of all entering students.

The personnel records for each student are gathered in a single folder, which is filed in the counseling center. When a student comes for help much advance material is instantly available there. This building of a folder for each student, therefore, provides the basis for rapid and comprehensive service to the individual student counselee.

The physical plant has a usable floor area of 4,000 square feet. Included in this plant are a reception room, a group test room with capacity for 50 students, three rooms for individual test administration, private offices for each counselor, shared offices on staggered schedules for interns, an observation office with one-way glass and intercommunication system to a conference-seminar room, a case history file room, a scoring room with three scoring machines and

test storage facilities, and the usual clerical and other personnel and equipment necessary for an operation of this size. Without introducing further details we can now turn to Joseph R. Williams, counselee.

The Counseling Process—Collection of Data

The receptionist looks up and smiles at Williams as he stands before her desk. He is dressed much like other students, and there seems to be little to distinguish him from the others who come to the center. He asks for an appointment with a counselor. He is given a brief identification form to fill out and, when he brings it back to the desk, he is asked whether he would prefer to wait and see a counselor for a preliminary interview in a few minutes with anyone available or to come back in a day or two for an appointment with the counselor who will work with him. Williams says that a friend of his got a lot of help from counselor Jones and that he too would like to work with Jones. He is told that Mr. Jones' calendar is full at present but that an appointment can be made for three days later. Williams still feels that he would rather have Jones for a counselor than anyone else, so the appointment is made.

The Machinery

Almost at once after Williams has left the center, the preparations for his first interview with counselor Jones are begun. His folder is drawn from the files and referred for checking to a graduate intern, Smith, who assists Jones. The intern finds that the high school record has been received from the admissions office. Grades for the first semester have come from the registrar's office. The clearance slip from the student health service is in its place. An educational-vocational autobiography from the first-semester English course has been checked out to Williams' academic adviser and must be recalled. No group activity slips are on file from the student activities program. The

extensive general information blank required from all entering students is in place. The records show that he has had no interviews with a university counselor. The faculty academic adviser apparently has not as yet put any notes on selection of a course of study in the folder. Williams has no notation of disciplinary action against him, but this item will be checked with the secretary of the discipline committee to make sure. The intern phones this secretary and goes to the academic adviser to get the autobiography and any notes he may have about Williams. He sees to it that the folder is on counselor Jones's desk a day in advance of the first interview. Let us now inspect the specific information which counselor Jones will have at his disposal when Williams comes in.

Data from Educational Experiences

Williams has proceeded on a routine academic schedule since the beginning of the primary grades. He entered first grade shortly after his sixth birthday, took no skip promotions, continued to advance through elementary grades, junior and senior school in regular progression. No grades from the elementary school are in the folder. The junior and senior high school grades yield the following summary.

Area of study	*Letter grade*	*Junior high school*	*Senior high school*
Arithmetic	B	x	
Algebra	B	x	
Geometry	B		x
English	A	x	
	B		x
Social studies	A	x	x
Physical sciences			
General science	B	x	
Chemistry	C		x
Physics	C		x
Languages			
Spanish	A		x
Shop	C	x	x
Typing	B		x

Williams graduated from high school twenty-first in a class of 210. He was the eighth highest boy out of the 113 male students in this class. He had been awarded no honors for his academic work but had achieved a substantial scholastic record.

The grades for the first semester of the freshman year in the college of liberal arts were:

Basic English	B
Spanish	B
Political science	C+
Chemistry	C−
Physical education	C
Mathematics	C−

Data from Standardized Tests

Williams had come from a school system where a minimal test program was followed. The high school record carried the following notations.

Stanford Binet*	Grade 1	113 I.Q.
Otis Intermediate†	Grade 8	119 I.Q.
Otis Higher Form A	Grade 10	110 I.Q.
Ohio Psychological‡	Grade 12	60 percentile (college freshman norms)

The test record from the battery given to entering freshmen at Y University yielded the following data:

* Terman, L. M., and Merrill, M. A. *Measuring Intelligence.* Cambridge, Mass.: The Riverside Press, 1937.

† *Otis Self-administering Tests of Mental Ability, Manual of Directions and Key* (For Intermediate and Higher Examinations). Yonkers, N.Y.: World Book Company, 1928.

‡ *Ohio State University Psychological Test.* Columbus, Ohio: Ohio College Association, 1941. Science Research Associates, Chicago, distributors.

		Percentile for freshmen	
		National	*Local*
American Council on Education (Form 1948)*	Quantitative	37	22
	Linguistic	72	56
Cooperative General Science (Form 0)†	Total	45	32
Cooperative English (Form Pm)	Total	75	61
Cooperative Intermediate Algebra (Form T)	Total	29	14
Cooperative Test of Social Studies Abilities (Form Q)	Total	83	74
Minnesota Clerical Test (Short Form)‡	Names	50	
(Norms for Employed Clerical Workers)	Numbers	33	
The Strong Vocational Interest Blank (for Men) (see p. 289)§			

* *American Council on Education Psychological Exam for College Freshmen.* Washington, D.C.: American Council on Education, 1947.

† *Cooperative Achievement Tests.* New York: Cooperative Test Service, 1949.

‡ *Minnesota Clerical Test.* New York: The Psychological Corporation, 1946.

§ *Strong Vocational Interest Blank (for Men).* Stanford University, Calif.: Stanford University Press.

Williams, Joseph R.

SUPPLEMENTARY INFORMATION BLANK B

Underline all the individual activities in which you have engaged with some degree of success. *Cross out* any activities you have tried and found you disliked or were not interested in. *Encircle* those activities you enjoy very much. Add other activities in any group if you wish.

a. Literary Activities

1. ~~writing plays~~
2. writing poems
3. writing stories
4.
5.

b. Dramatic Activities

1. giving dramatic readings
2. radio speaking
3.
4.

c. Creative Art Activities

1. drawing
2. interior decorating
3. modeling
4. painting
5.
6.

d. Musical Activities

1. composing music
2. ~~playing a musical instrument~~
3.
4.
5.

e. Household Activities

1. cooking
2. home care of the sick
3. housework
4. taking care of children
5.
6.

f. Handicraft

1. crocheting
2. sewing
3. dressmaking
4. ~~metalwork~~
5. leather work
6. woodcarving
7. ~~working with tools~~
8. ~~working with machinery~~
9.
10.
11.

g. Individual Sports

1. archery
2. bicycle riding
3. boating
4. golf
5. hiking
6. horseback riding
7. ice skating
8. roller skating
9. skiing
10. swimming
11.
12.

Underline those of the following that you thoroughly enjoy. *Cross out* those that you distinctly dislike. *Add* any others in each group and mark in the same manner.

a. Listening to Music (radio, concerts, etc.)

1. concert music
2. dance band
3. ~~opera~~
4. popular music
5. symphonies
6.
7.

b. Watching Sports

1. baseball
2. basketball
3. football
4. ~~golf tournaments~~
5. hockey
6. polo
7. tennis
8.

c. Attending Amusements

1. amusement parks
2. movies
3. plays
4. races
5.
6.

d. Attending Lectures on

1. ~~book reviews~~
2. current events
3. political issues
4. travel
5.
6.

e. Reading (aside from books)

1. digests
2. ~~fashion magazines~~
3. ~~movie magazines~~
4. mystery story magazines
5. newspapers
6. news weeklies
7. ~~popular fiction magazines~~
8. travel and adventure magazines
9. ~~women's interest magazines~~

f. Listening to Radio

1. comedians
2. ~~continued stories~~
3. educational information
4. forums
5. mystery stories
6. news comment
7. ~~plays~~
8. ~~quiz programs~~
9.
10.

The reading you have enjoyed particularly during the past year included:

Magazines (names)	*Books (types)*	*Favorite Authors*	*Special Topics*
Reader's Digest	Mystery	Rhinehart	Sports
Collier's	Biography	Van Dyne	World events
Fortune	Adventure	Allen	Drink-water
			Business events

List group activities in which you have participated, such as paper, musical activities, school clubs, group sports, creative arts groups, religious activities, debate, dramatics. Underscore any in which you have acted as a leader, served as committee chairman, or club officer.

School paper (H.S.), substitute on high school football team (2 yrs.), graduation committee (H.S.), Spanish club vice-president (H.S.)

List hobbies you have had:

For a short period:	*One year or more*	*Five years or more*
		Reading
Collecting stamps		Watching athletic contests

Underline any of the following words which characterize you: nervous, sleepless, easily exhausted, headache, fainting spells, fits or convulsions, dizziness, backache, tingling in hands or feet, stammering or other speech difficulty, frequent periods of gloom or depression, poor health.

Underline any of the following words which you feel describe your general make-up: persevering, friendly, patient, stubborn, capable, tolerant, calm, imperious, pessimistic, reserved, bashful, self-confident, jealous, talented, quick-tempered, anxious, depressed, nervous, easily exhausted, unhappy.

It is possible to make a rough classification of occupations in terms of your general interests and abilities. In the following list, indicate in order of preference (1,2,3) the three groups in which you believe you would best fit:

____ Occupations involving business contacts with people, such as the various fields of selling, promotional work, politics, etc.

3 Occupations involving business detail work, such as accountancy, business statistician, cashier, banker, stenographer, and office clerical work.

____ Occupations involving social service activities, such as YMCA worker, teacher, Boy Scout executive, personnel worker, social case worker, welfare worker, etc.

____ Occupations requiring special artistic abilities, such as musician, actor, artist, interior decorator, designer, etc.

2 Occupations involving executive responsibilities, such as director, office manager, foreman, etc.

1 Occupations involving technical or scientific work, such as engineer, toolmaker, etc.

____ Occupations involving verbal or linguistic work, such as lawyer, newspaperman, author, advertising man, professor, librarian.

List in chronological order all your work or employment experiences to date. Include part-time or summer jobs.

Cutting lawns, running errands, etc.
Morning paper route
Part-time clerk, grocery store
Xmas work, U.S. Post Office, camp counselor, boys' camp

Which of these jobs did you like best?

None of these meant much

Why?

List in order of preference five occupations in which you would like to earn your living. Do not consider your abilities or job opportunities in making this list. Just consider whether or not you would be happy in the work.

	Occupation	*Reasons for Interest in the Occupations*
1.	Medicine	Help people, security
2.	Engineering	Security, good opportunities
3.		
4.		
5.		

What is your present vocational choice? Have none yet

When did you make this choice? (give the year) _____

Why did you make this choice? Family suggestion or tradition _____

Friend's or teachers' advice _____. Is it the vocation of someone you admire or respect? _____. Is it the choice you have made on your own responsibility? _____. Other reasons: _____

How certain are you that the occupation you have written above is the one you really want to prepare for: Very certain and satisfied _____

Uncertain _____ Very questionable X .

If you were free of all restrictions (if you could do as you wish) what would you want to be doing 10 or 15 years from now? Be a successful physician

What do you expect to earn the first year in this occupation? $5,000

At your peak? $10,000-$30,000

How much information have you about the requirements of the vocation you are choosing? None _____ Some X Extensive _____

Where did you get your information? Listening to my relatives and fellow students

Have you any physical limitations (size, strength, health, eyesight, etc.) that affect or limit your choice of an occupation? No

What immediate decision must you make as to your vocational plans? None - I'd like to get started on something

THE STRONG VOCATIONAL INTEREST BLANK

Occupational scale	*Letter grade* C C+ B− B B+ A
Technical Group	
Chemist	
Engineer	
Mathematician	
Architect	
Physician	
Psychologist	
Welfare or Uplift	
Personnel Manager	
City School Superintendent	
Y.M.C.A. Gen. Sec.	
Y.M.C.A. Physical Dir.	
Minister	
Teacher	
Business Contact	
Life Ins. Salesman	
Real Estate Salesman	
Verbal-Linguistic	
Lawyer	
Editor	
Advertising Agency Man	
Business Detail	
Accountant	
Office Clerk	
Purchasing Agent	
Certified Public Accountant	x
Masculinity-Femininity	Standard score 55
Interest Maturity	60
Occupational Level	70

Vocational Experiences

The vocational experiences in the general information blank give the following:

Age 10–17	Cutting lawns, running errands, etc.
Age 13–15	Morning paper route
Age 16–18	Part-time clerk in grocery store
Age 18	Christmas season work, Post Office
Age 17	Camp counselor, boys' summer camp

Medical History

The student health service classifies general health as good. The personal history form notes measles, mumps, a broken wrist at age fourteen, and chicken pox. There is no record of any severe emotional disturbance.

Data about the Family

The family consists of the father, mother, one brother, and one sister. The parents and the sister live at home.

Father: Age 46. High school education. Owns and operates a clothing store in a town of 10,000 inhabitants. Belongs to Kiwanis club, Masonic Lodge, and is active in the church. Hobbies are hunting and fishing.

Mother: Age 44. High school education plus two years of teachers' college. Taught school for three years. No other vocational experience. Active in church work. Hobby is gardening.

Brother: Age 24. High school education completed after the war. Partial disability from a service injury. Married, one daughter. Works in the radio maintenance and repair shop for a large department store in a city several hundred miles from the father's home.

Sister: Age 15. Now in tenth grade.

The family owns its home. Williams works part time.

Observational Data

Direct: None are available because the high school records contain none and there have been none entered on the record in the university.

Indirect: None are available for his college semester. However, the rating scale completed by the high school gives this information:

HIGH SCHOOL PERSONAL RATING SCALES

Cooperativeness

(Does he work well with others?)

Often conspicuous for poor teamwork	____	Works very well with others in group activities	____
Not a good teamworker	____	Works harmoniously with others, leads and follows well	____
Gets along with others satisfactorily in group activities	x	No opportunity to observe	____

Dependability

(Can he be relied upon?)

Steadfastly honest, truthful and reliable at all times	____	Well intentioned but somewhat unreliable	____
Can be relied upon with confidence	x	Cannot be depended upon	____
Minor lapses, infrequently, from complete reliability	____	No opportunity to observe	____

Ambition

(Drive for self-improvement)

Engrossed in realizing well-formulated objectives	____	Aims to "just get by"	____
Directs energies effectively toward usually sound growth objectives	____	No well derived goals; little drive	____
Has vague objectives: spasmodic drive toward goals	____	No opportunity to observe	x

Personal Impression

(How are people affected by his appearance and behavior?)

Avoided by others	____	Markedly liked and sought after by others	____
Tolerated by others	____	Outstandingly respected and popular	____
Liked and sought by others	x	No opportunity to observe	____

Initiative

(Goes under own steam; does not need prodding)

Self-driving; no urging or prodding	____	Needs consistent prodding	____
Much drive and initiative; requires some direction	____	Little initiative even when given much help	____
Completes assignments reasonably well without great urging or direction	x	No opportunity to observe	____

Leadership

(Helps others to work for common goals and is accepted in this role)

Never exhibits leadership	____	Sometimes leads in important affairs	____
Usually lets others take the lead	____	Displays marked qualities of leadership	____
Sometimes leads in minor affairs	x		

Personal Documents

At Y University each entering freshman is required to write an educational-vocational autobiography following a prepared outline. This autobiography is assigned as an exercise in the English department* during the first month of the semester and when corrected as such is forwarded to the counseling center.

Educational-Vocational Autobiography[1]

English I

Joseph R. Williams

At the present time I have no specific vocational choice. Like most people, I have wanted to be many things since I was a small child. When I was five or six I wanted to be a policeman. Then a flyer. My dad runs a store, so for a while I was interested in storekeeping. After helping him part-time for a number of years there seemed to be too many things I didn't

* Any unnatural word usage or stiffness in style may, perhaps, be attributed to this influence.

[1] Hahn, Milton E., and Brayfield, Arthur H. *Job Exploration Workbook.* Chicago: Science Research Associates, 1945. Pp. 6–8.

like about that work. My high school teachers and the guidance director were worried because I couldn't make any choice before I graduated. Perhaps coming to college is a choice? I registered for an academic program this Fall because I was told by my college adviser that it would give me plenty of time to investigate and think about what I might want to do. At this time I am in the same situation regarding a vocational choice that I was when I finished high school.

I am not sure of the reasons for not having a choice. None of the jobs at which I have earned money have been the kinds of things I would like to do all of my life. I know that I must have some abilities which will be useful in earning a living later on. Just what my strongest points are I do not know for certain. My interests just won't center. There are so many things one can be interested in. I have thought some of chemistry but I can't seem to get too heated up about it. Mother would like me to study medicine. I don't know enough about myself to be sure I'd be happy as a doctor. I am as interested in this perhaps more than in any other training. Some of my friends like engineering, so I might try that although, because I didn't plan my course of study that way, I will need an extra semester if I decide that is what I want to do. Engineers and doctors are very well paid. Doctors are never out of a job even in a depression. Some magazines I have read say this is the "Century of the Engineer." It should be a pretty good insurance if we have depressions. But then it may be that I'd not like either after I finished college.

A doctor must be smart to get through school. He must be interested in people and their troubles. They are respected in their home towns. Their incomes let them have nice homes and good cars. They are their own bosses even though they must go out at night when people need them. Physicians are trained in science before they get into medical school. Most of the medical school subjects are scientific, including chemistry, anatomy, and other similar studies. It takes longer to be a doctor than to study for any other profession. After a college degree one must spend four years in medical school and from one to two years as an intern.

An engineer is pretty much a mathematician. His training

begins in the freshman year and is different from that that most others get. If a student wants to be an engineer and doesn't know that when he enters college he must go back and make up credits. An engineer can finish his training in four years usually, although in some universities it takes five years. Even when one decides to be an engineer there are so many kinds—civil, mechanical, electrical, aviation—it isn't quite clear as to what one will really do. Because it only takes four years to finish, engineers are not required to be as intelligent as doctors. If I should find that I can't get the work of pre-medicine this could be a good reason for considering engineering as an alternative.

Neither of these occupations is a definite choice. I have decided that these are good fields and I should consider them. Even this uncertain choice is a recent one. I don't remember that I had any serious choices in high school. We were asked several times to make choices and I put anything down that came into my head to avoid being different or pressured. One of these choices was medicine but I wasn't serious then. One problem for me is that I don't know enough about myself compared to other people of my age.

If I enter medicine I expect to make about $5,000 the first year while I'm getting started. Because there are better chances in larger cities, and I would practice in such a city, in five years I should be making between $10,000 and $30,000 a year if I am good. Engineers do not make as much as most doctors. If I entered engineering I would expect to make about $4,000 my first year, if there were no depression. In five years I would expect to make $8,000 to $10,000 a year. In medicine my peak earnings might run over $30,000 a year if I was lucky. In engineering my peak might stay below $15,000 per year.

I don't think my past vocational experiences will have any bearing on my final choice. My hobbies and spare time activities haven't been important either. I like athletics but I'm only fair in sports. I like to read and have done pretty well in writing English themes and for my high school paper. I haven't been interested enough to go out for the University paper. I like moving pictures, dating, and dancing, almost anything which lets me be with groups of others my age.

I don't know too much about my aptitudes and abilities.

Because of my high school and first semester grades I assume I'm at least average in I.Q. In high school and so far in the University I haven't had much opportunity to study myself and my aptitudes. As I have pointed out earlier in this paper I haven't discovered any important interests which would be useful in making a choice of an occupation or the professional education I should have.

In the list of job families given me for writing this paper I can't find any particular one which makes me excited. Because of the reasons I have given for medicine and engineering the following are as good as any.

1. Occupations involving technical or scientific work such as engineer or doctor.
2. Occupations involving social service activities such as teacher or personnel worker.
3. Occupations involving executive responsibilities such as business executive.

The personality traits which I have which might be useful to me in earning a living are my interest in the problems of others, my attempts to be sincerely friendly with other people and my tendency to finish things I start.

Counselor Jones, following his established habit of setting aside ample time for digesting folder material before seeing his cases, read that of Williams carefully the morning of the day the first interview was to take place. Because of his professional training and long experience, he integrated the data quickly, kept in mind what seemed to him pertinent items, so that he would not waste time asking Williams to repeat information already in the folder, and mentally marked out the gaps which might be filled in by interview, tests, or other means. As part of Smith's training as a graduate student intern, Jones asked him to go over the Williams case thoroughly and set down the questions that occurred to him. To these Jones responded not with answers but with additional questions of his own addressed to Smith as follows:

Smith's questions	*Jones's questions*
1. What are the academic standards of the high school Williams attended?	How would you validate Williams' high school course grades?
2. What significance is there to the differential pattern of course grades?	Could teacher differentials account for this pattern? Or is there a difference in "difficulty" among subjects? Or do the only real differences arise in the students?
3. Which is usually (always?) more significant, grade average or standing in class?	Why should one be more significant than the other? Should we use both? If so, why?
4. What are the major factors used by the teachers in this high school in grading?	What are the variables high school teachers in general use in grading?
5. Does size of the high school have any bearing on grading?	If a difference occurs, do larger schools give higher grades or vice versa? Is grading in a school consistent from year to year?
6. Specifically what is the meaning of an A grade? a B grade?	What does "failure" or F mean? Always or usually the same thing?
7. How reliable are Williams' grades in this university for last semester?	Do any of the departments in Y determine grade reliability? Are grades the same from one to another?
8. How valid are his college grades?	Is it difficult to validate college grades? How would you design an experiment to validate college grades here at Y?
9. In other universities like Y with 12,000 or more students do lower division classes tend to be large lec-	Do class size and method of instruction affect grading? type of exams? Are W's classes at Y like or strikingly

Smith's questions (Cont.)	*Jones's questions (Cont.)*
ture ones? What size were Williams' classes? Were they lecture? quiz? lab?	different from his high school classes? Has he been taught how to meet these differences? How?
10. Do W's instructors use an absolute grading scale or normal curve?	Should the "normal curve" be used on freshmen? Why? Upper division students? Why? Graduate students? Why? If your answer is "no" to any of these, does this mean that no curve of distribution should be applied in college courses? If it should be applied, how do you adjust it to a given population?
11. Are W's grade differentials in Y due to his performance? To his instruction? To chance variation in the abilities of the students with whom he has been competing?	Could W raise his grades here by picking courses in which less able students are enrolled? Is there any method by which he could pick such courses consistently or by which he could choose "high" grading instructors?
12. Are the results on W's early Binet and Otis tests significant?	Who gave them to him? What difference would it make?
13. How and by whom were the Otis and Ohio group tests administered?	What difference would it make? What questions would you raise about the way the results are recorded?
14. Is it correct to use I.Q. with the Otis tests?	Why? What are the limitations of the I.Q.? Does it apply to college age?
15. On what population was the Ohio Psychological Test standardized?	Is Y's population comparable? Has this test been compromised? How could it be?
16. Do tests such as the Ohio	What are the chief factor

Smith's questions (Cont.)	*Jones's questions (Cont.)*
and Otis predict equally well for all colleges and universities?	loadings in the Ohio? What differences do these make?
17. What assumptions does the high school make concerning colleges and universities when it reports academic intelligence test scores to them?	Good question—what do they assume? Are the assumptions well founded?
18. Do high schools usually have any theory of mental organization behind their testing programs?	What theory do you assume they have even if you find little evidence that they know they have one?
19. Should those who use academic intelligence tests for placement necessarily have any particular theory of mental organization in mind?	Probably, but why? Does the use of other ratings for placement also demand such theories of mental organization?
20. How comparable are the Ohio Psychological and American Council Psychological examinations?	Break this down. Compare by content, vocabulary, degree of difficulty, norms used, validating and reliability processes.
21. Why are there such differences between local (such as here at Y) and "national" norms on the ACE?	How valid are our local norms? How valid the national? What references will give you ready answers on the latter?
22. Can you compare one test's results directly with another?	What statistical procedures would produce equivalence tables? Can comparability be found clinically? Why or how?
23. Are local over-all norms sufficient or should we do further subnorming?	Why? How prevalent is subnorming in colleges? How often is local subnorming necessary? Why?

Smith's questions (Cont.)	*Jones's questions (Cont.)*
24. Why does Y use the Co-operative instead of some other test battery?	When you have lined up all the reasons, can you rate them on logic and validity?
25. Are the local Y norms in keeping with W's first semester grades?	If there appear to be marked differences, to what factors will you attribute these? What experimental design would you follow to test your answer?
26. Can achievement tests be used as a cross check and validator of the academic intelligence test results?	If your answer is yes, which ones? Why?
27. Why does our counseling center include a clerical aptitude test?	Should we include some for mechanical ability? Others?
28. Are academic intelligence tests administered individually more valid and reliable than group tests?	Why should they be? Are there crucial studies reported on this point? How would you design an experiment to give a clear answer?
29. Are interest and personality inventories easily falsified even by naïve students, as rumor says they are?	What is the research evidence? By what methods could our Y psychometrist ensure honest responses?
30. What are the major methods by which Dr. Jones will try to diagnose W's educational-vocational *interests*?	Assume I use three—how do they compare in validity and reliability?
31. How valid and reliable is the Strong Vocational Interest Blank?	How do its reliability and validity compare with those of standard academic achievement and intelligence tests?
32. Are there any major weaknesses in the Strong Blank?	Sure, there are in all tests. What ones are there in this? What in the Kuder Preference Record?

Smith's questions (Cont.)	*Jones's questions (Cont.)*
33. Are there other equally good interest tests?	What are the criteria of excellence in an interest test?
34. Why, in a vocational interest test, are nonoccupational scores given, such as Interest Maturity? Masculinity-femininity? Occupational Level?	Do these alter the scoring on the strictly occupational keys? If so, in what ways? What is the research evidence concerning the value and importance of these scales?
35. Are interest scores of value in other aspects of counseling than with vocational problems?	Can they be used as clues to personality structure? attitudes? value dominants?
36. Should I ever use or interpret Strong interest scores without reference to the nonoccupational scales?	I would not. Why?
37. Why does Dr. Jones say he will use the occupations for which he has scores only as examples of the field-level concept?	Did I say that? Did I mean it? If so, why?
38. What is the magnitude of relationship between measured interests and measured academic achievement?	Find it and express it as a coefficient of correlation. Can you answer the same as between claimed interests and achievement? between observed behavior and achievement?
39. Dr. Jones has a comprehensive library section on measured, estimated, and claimed interests. I wonder which book I ought to own?	I have five basic ones. Give me your list and see if it agrees with mine.
40. Are medical and counseling ethics as to the inviolability of confidential	What are these medical ethics? counseling ethics? Do the principles controlling the re-

Smith's questions (*Cont.*)	*Jones's questions* (*Cont.*)
information in such agreement that I can get all the medical findings in W's case from the health service?	lease from the Y health service to us also apply to W's private physician? If either will give us reports, will they do so in writing? orally? Why?
41. Are the relationships between the counseling center and health service here good? Why?	Answer this for yourself in terms of (*a*) policies; (*b*) regulations; (*c*) specific procedures.
42. If Dr. Jones finds that W needs psychotherapy on emotional problems would these relationships be changed?	What techniques of referral would I use? What reports back to me could I expect? Are there any data on W I should send to the health service psychiatrist?
43. What items *re* W's family are significant?	Which of these require further probing? What clinical inferences do you draw from them?
44. What relationships can be defined between major items about W and those about his family?	Can we express any of these relationships — father-son, mother-son, father-mother, siblings—as coefficients of correlation?
45. What additional information do we need about W's family?	Should you probe for it? If so, how can you tell when and by what approaches to probe in the interview? What other methods can you use to get the information?
46. If I use direct observation with W, must I make allowances for his age in interpretation?	At what age and educational levels can the best observational records be obtained? the poorest? Why? How?
47. The personality rating scale looks to me like a	It could be. If so, what rules for construction of rating

Smith's questions (Cont.)	*Jones's questions (Cont.)*
rank amateur job. Am I wrong?	scales have been violated? Where will you look for these rules? What are the best references? Why?
48. Are there any items in the rating scale usable in W's case?	More important is, what is left out that we need? How about the Allport-Vernon Scale of Values? the Bell Adjustment Inventory? the Bernreuter Inventory? Minnesota T-S-E? Minnesota Multiphasic Inventory? the Rorschach? Are there any indications that any or all of these should be given to W? What are the major differences between self-rating scales (inventories) and scales rated by others?
49. In what major ways are personality rating factors related to other data?	That is an important and difficult one. Where will you find the answers?
50. What are the values for counseling in W's autobiography?	What researches led us at Y to include the autobiography as a counseling tool?
51. How good is this particular autobiography?	Is it structured or unstructured? What are the advantages and disadvantages of each? What is the evidence? Where is it found?
52. Why was this autobiography written in the English department?	What are the advantages and disadvantages of having it done there? In what other ways might our counseling center get this material at Y or any large university?
53. What are the basic and essential problems of W?	How will you line these up and put them in order of

Smith's questions (Cont.)	*Jones's questions (Cont.)*
	importance? Can you be sure the critical ones, if there are any, are revealed by the data now in the folder?
54. How will Dr. Jones structure his counseling of W?	What evidence do I have that I should use Rogerian techniques? mildly directive? strongly directive? What are the major omissions in the present data? Can these be filled best by interview with W? with others? by further tests? observations? an amplified autobiography? referral, and if so, to whom, for what?
55. What stereotypes of interpretation and counseling techniques does this case of W suggest?	Are we in danger of oversimplifying this case? Is it simple? Is it more complex than it seems? How shall we avoid stereotypes here?

Counselor Jones employs this method of asking more questions instead of giving answers, glib and ready, to Smith's questions because he is convinced of the soundness of this technique of training his counseling interns. When Smith seems a bit baffled by it, Jones cites the passage in Wendell Johnson[2] in which he elaborates on the cardinal principle that in science clear answers can be had only by asking clear questions. Jones himself, out of long training, out of experience with many counselees, out of keeping abreast of the literature, out of carrying on his own research and directing that of others, would experience little or no difficulty in giving many of the answers or indicating where the answers may be found. Since he has worked at Y for a

[2] Johnson, Wendell. *People in Quandaries.* New York: Harper & Brothers, 1946. Pp. 52–57.

number of years he knows also many of the related factors, such as a quite intimate understanding of the administrators and faculty members at Y and the idiosyncrasies of persons and departments in the health service and elsewhere on the campus. He has an insight into local student mores. He is, in general, well acquainted with the curriculum and the extracurriculum. He is familiar with the organization and operation of the "machinery" of the university as well as with its policies. He has a wide direct and indirect acquaintance with occupational information concerning professional and nonprofessional job outlets for college-age people.

But Smith is a neophyte. Jones likes and respects him and wants him to attain the competence he assumes he is capable of attaining. Therefore, by his questions, he hopes to send Smith in quest of answers to all the questions and to have him learn the necessity of using all the tools of the counseling trade, including psychometrics, statistics, occupational information, rating scales, personal documents, academic and work records, the interview, sociometrics, semantics, projective devices, and all aspects of the systematic case study. He further needles him gently to learn to make sure that each is used in the right way at the right time and within its limitations.

Some of the answers will be found in the next step taken in this illustrative case of Joseph R. Williams, which will be counselor Jones's interview with him. Dr. Jones has already winnowed a mass of data, some of which he found relevant and some not. He has clarified his own thinking to a degree by asking the questions of Smith. He has tried to avoid stereotyping or anything else that might lead him to prejudice the case before the interview. He has too often seen himself fail or be faulty in counseling by jumping to conclusions as to problem areas from the raw data in the folder before seeing his counselees. However, his careful but rapid reading of these data have helped him to set up some tentative problem areas to explore in the interview

and these he intends to examine carefully both to delimit them and to discover their depth. He knows that if they are superficial a single interview may be enough. If, however, they go deep it may take twenty or more interviews, much supplementary testing, and perhaps referral to one or more other clinical workers. At this point, the reader may find it worth while to summarize for himself the materials and the questions concerning Williams and to hazard a tentative estimate of what Dr. Jones will find in the interview before going on to the next chapter dealing with the counseling process.

Chapter 10. A COUNSELING INTERVIEW: SOME IMPLICATIONS

Counselor Jones has just completed a last inspection of Williams' folder. At ten o'clock Williams is due at the office for his conference. Jones is taking the last few minutes to organize and structure this interview in advance. The case history folder indicates to Jones that he is dealing with a student of around average academic ability at the college level, who has been a good high school student and a fair performer in the university for one semester. The autobiography, plus the interest inventory scores, seem to mean that there is no strongly entrenched vocational goal established. There is little evidence, pro or con, that emotional adjustment will enter the picture as a major factor. On the surface Williams presents a very usual problem, that of a student seeking to clarify his educational-vocational objectives in college and after.

If Jones were to take time to make notes on what he hopes to learn from Williams through interview techniques, his outline would look as follows:

Nature of the personal problem and attitudinal sets regarding
- *Emotional condition* (present) and general emotional stability
- *Social adjustment* to college, community, and home
- *Educational planning* in view of capacity, interests, and motivations
- *Vocational planning* in view of capacity, interests, and motivations
- *Religious, moral, ethical outlook* in terms of personal philosophy

Educational-vocational interest pattern[1]

Strong Blank	*Kuder Preference Record*
Scientific	Mechanical
Technical	Scientific
People and personal relations	Computational
Welfare	Persuasive
Business contact	Literary
Business detail	Musical
Verbal-linguistic	Artistic
Occupational level	Social service
Interest maturity	Clerical
Masculinity-femininity	

Aptitudes[2]

General and specialized: academic, mechanical, social, clerical, musical, artistic, motor

Abilities (present skill levels)

In the same areas as for aptitudes

[1] Darley, John G. *Clinical Aspects and Interpretation of the Strong Vocational Interest Blank.* New York: Psychological Corporation, 1941.

Kuder, Frederick, *Manual for the Kuder Preference Record.* Chicago: Science Research Associates, 1948.

Strong, Edward K., Jr. *Vocational Interests of Men and Women.* Stanford University, Calif.: Stanford University Press, 1943. Pp. 412–482.

Super, Donald. "The Kuder Preference Record in vocational diagnosis," *Journal of Consulting Psychology,* 1947, 11:184–193.

[2] Dvorak, B. J. *Differential Occupational Ability Patterns.* Minneapolis: University of Minnesota Press, 1935. Employment Stablization Research Institute, Vol. 3, *Bulletin* No. 8.

Paterson, Donald G., and Darley, J. G. *Men, Women, and Jobs.* Minneapolis: University of Minnesota Press, 1936.

Paterson, Donald G., Gerken, C. D., and Hahn, Milton E. *Minnesota Occupational Rating Scales.* Chicago: Science Research Associates, 1941.

Stead, W. H., Shartle, C. L., *et. al. Occupational Counseling Techniques.* New York: American Book Company, 1940.

Trabue, M. R. "Occupational ability patterns," *Personnel Journal,* 1933, 11:344–351.

General personality integration[3]

Social maturation
Interpersonal relations—siblings, parents, intimates
Extraversion-introversion tendencies and areas
Consistency—inconsistency
Value systems
Semantic and verbal symbolic structuring
Balance
Figure-ground dominants, conditioning, canalization
Attitudinal sets which affect the personal problem pattern
Health attitudes, physical, mental, self-sufficiency, dependence
Submission-aggression-withdrawing pattern
Maturity level of personal philosophy-religion, ethics
Masculinity-feminity

Life goals and their relative importance in terms of idealized image of self[4]

[3] For this and the following section on life goals see especially:

Allport, G., and Vernon, P. E. *Manual for the Allport-Vernon Scale of Values.* Boston: Houghton Mifflin Company, 1931.

Bell, H. *Manual for the Bell Adjustment Inventory.* Stanford University, Calif.: Stanford University Press, 1938.

Evans, Catharine, and McConnell, T. R. *Manual of the Minnesota T-S-E Inventory.* Chicago: Science Research Associates, 1942.

Hathaway, S., and McKinley, J. C. *Manual for the Minnesota Multiphasic Inventory.* New York: Psychological Corporation, 1943.

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[4] Child, I. L. "The use of interview data in qualifying the individual's role in the group," *Journal of Abnormal and Social Psychology,* 1943, 38:305–318.

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Darley, John G. "Use of interest and aptitude tests in counsel-

Security
Service to others
Personal satisfaction
Financial rewards
Power over others
Prestige

Counselor Jones is quite certain that he cannot arrive at valid and reliable answers to these highly personal questions by a direct question-and-answer method alone. Experience has taught him that the natural reserve of the counselee often will cause a covering up of real attitudes, beliefs, and feelings until sound rapport has been established. He, therefore, suggests to himself the many tools and techniques he may want to use as the case proceeds. He reminds himself that the interview must be a learning situation if the counseling is successful.

The buzzer is sounded by the receptionist and Jones rises and goes to the door. To the casual observer there is nothing planned for effect in the counselor's behavior for the next few minutes. Actually, Jones is very careful to employ certain small, but important, social usages as he greets Williams. He meets him at the opened door instead of sitting behind the desk and saying, "Come in." An unstrained smile and handshake accompany the "Glad to see you." Williams is offered a comfortable chair. Jones seats himself nearby, and without the desk between them, thus avoiding the symbolism of boss and hireling, of superior and inferior. Instead his chair is beside the desk within easy reach of the case folder and other materials. He offers Williams a cigarette and comments casually on a recent basketball game and a new university building which is being constructed.

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ing," in Strong, Edward K., Jr. *Vocational Interests of Men and Women.* Stanford University, Calif.: Stanford University Press, 1943. Pp. 457–482.

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At the same time he studies Williams. Personal appearance and grooming are good. There are no outward signs of overtension. Williams joins in the small talk easily and appears relaxed. Jones chats informally for a few moments and then, because Williams appears to be waiting for a cue as to the next step in being counseled, asks, "Things bothering you?" Williams says, "Sure, that's why I came." He repeats briefly what he had stated to the receptionist and in his autobiography. His problem is one of educational-vocational indecision. He talks for a short time and then sits back waiting for another cue.

Jones lets the silence last for half a minute and then asks, "Did it bother you to take so many tests when you entered the university?"[5] Answering "No," Williams opens up with a series of questions regarding what he calls the "grades" he got on the various tests. Jones discusses each of these instruments briefly but carefully and interprets Williams' results in generalized terms. But, he does not give the actual raw or scaled scores to the counselee.[6] It should be noted that, in his outline of items of possible importance, *social adjustment* was the second item with *emotional adjustment* first. Jones opened the interview by attentively listening and giving Williams the chance to carry the talk in any direction he chose. Williams did not move in either the social or the emotional direction. Instead he turned the conversation at once toward his educational-vocational problem. This could be because he is feeling his way toward accepting or rejecting Jones, because he does not feel secure enough to go into these matters, or, equally possible, because he has no serious social or emotional problems. Thirty minutes of Williams' allotted hour have passed and a second silence comes.

[5] Muench, George A. *An Evaluation of Non-directive Psychotherapy.* Stanford University, Calif.: Stanford University Press, 1947. Pp. 157–158. *Applied Psychology Monograph* No. 13.

[6] Darley, John G. *Testing and Counseling in the High-school Guidance Program.* Chicago: Science Research Associates, 1943. Pp. 140–185.

Jones now attempts to stimulate Williams to talk about how he is getting along in the university and how he likes it, feels about it. Williams talks easily but briefly and again dismisses this area. He says he is satisfied with the university, puzzled about where to go from here. What about social life? Fun, nice companions, all to the good, in moderation. What about fraternities? Fine. Williams has had two bids but decided to think it over for the first semester. He might join one before spring. Girls? Nothing serious. One at home with whom he had gone in high school. A couple on campus who dance well and are good companions at parties.

Time is running out. Jones feels that Williams likes him and that the results of this first interview are satisfactory. He then swings the interview toward still unanswered questions about his educational-vocational plans, remarks that it is something that cannot be settled in a day. He asks Williams if he would like another conference. Williams appears pleased. They set a tentative time. Jones arranges with the receptionist to make the appointment before Williams leaves. In the five minutes before he must review the folder for his next counselee, Jones dictates the following summary of the interview:

February 24, 10 A.M.

Joseph R. Williams, freshman, fall, 19___. Stated problem educational-vocational indecision. Self-referred. Personal impressions good. Well-groomed, poised, talks easily, no observable pressures operating. Second interview scheduled for _____. Additional information desired (if Williams is willing):

Minnesota Multiphasic Inventory,[1] *Bell? Bernreuter?* reading test, life goals rating, self-rating on aptitudes and abilities.

Achieving slightly below expectations academically. Probably not serious at this point.

William Jones, Counselor

[1] Hathaway and McKinley, *op. cit.*

The first interview has established considerable rapport. It has given the counselor an opportunity to make observations and pick up impressions which help him to see the case history data attached to a live student, a person. This first hour gives no indications of emotional or social disturbances but, if Williams is willing, a personality inventory may make this impression a certainty or correct it. The hypothesis that Williams is achieving below expectancy calls for further data in the form of a rough but fairly effective test of speed of reading and comprehension.

Some High Points in the Interview

Because of the many semantic disagreements among and between the proponents of various types of interview therapy, it seems profitable at this point to consider the manner of approach used by Jones. The counselor described here uses an eclectic interview approach. He is neither "directive" nor "non-directive" beyond the point of keeping the interview within time limits imposed by work load and budget. In general, Williams was permitted to discuss what he wanted to discuss with a great degree of latitude, and Jones was permissive in his behavior.

On the other hand, Jones is in a position where a preliminary diagnosis is necessary. We speak of *diagnosis* here as any interpretation of the accumulated data. It is an essential analysis of cause and effect upon which a counselor may base his further therapy. It is a drawing of general clinical inferences upon which he can decide to refer the case to others or not. It is not necessary or particularly desirable that Jones apply a name to the problem syndrome he discovers. His preliminary, general diagnosis can be demonstrated in the form of questions and tentative answers.

1. Do this counselee and his problems fall within my competence? (Yes.)
2. Are there symptoms of serious lack of adjustment in any of the problem areas? (No.)

3. Is there need for depth or other special therapy? (No.)
4. In terms of the limitations imposed on the counseling center by the university, is this a case which I should handle? (Yes.)
5. Is the prognosis such that I should continue to counsel or should I refer? (Continue.)
6. Does this client need *counseling* or *advising*? (Counseling and advising.)
7. Are the case data sufficient to help the counselee meet his problems? (Incomplete.)
8. What additional tools and techniques of diagnosis for counseling should be used? (Not yet certain.)

Jones is not committed to a single type of therapy, nor are his counselees forced to accept a single approach or else go elsewhere for counseling. He is inclined to believe for the moment that there is no serious immediate problem in Williams' case. He feels that he is competent to work with him. While he is not absolutely certain of the diagnosis, he assumes that need for extended therapy is a remote possibility. If he were to predict the number of additional interviews necessary for Williams at this time the figure would be two to four at most. This number of conferences is reasonable for the counseling center as it operates at Y University in handling moderately uncomplicated cases. The diagnosis above leads Jones to believe that there is no present need for referral to another type of clinical worker such as the health service doctor, the psychiatrist, or the religious or financial adviser. On the other hand, the type of problem—vocational indecision—and the complexity of data which will probably need explanation to Williams takes the case partly out of the academic advising category, thus making an immediate referral to a faculty adviser inadvisable. With Williams' permission, a summary of final decisions can go to the adviser later. Jones wishes more information about Williams in the form of an inventory and a few more standardized tests already referred to. He is satisfied at the moment that additional diagnostic tools and

techniques need not be used. This preliminary general diagnosis is very unlike that which a physician makes regarding a physical condition, but the process of reaching tentative decisions about aspects of Williams' problems and their probable causes is still best defined by calling it a form of diagnosis. It should be noted that, while Jones introduced topics for discussion from time to time, it was not a question-and-answer conversation. Williams was permitted to treat each topic as he wished without leading questions or tight structuring by Jones.

Some Notes on Diagnosis

However, *diagnosis is not counseling.* The best diagnostician thinkable is of little use in counseling if the ingenious, reliable, and valid findings cannot be placed effectively at the disposal of the counselee in such a frame of reference that he changes his behavior so that his problems are met through emotional, as well as intellectual, acceptance of solutions which lead to better adjustment. In general clinical counseling, the preliminary, broad, diagnostic steps are needed to meet the questions set forth in the early pages of this and the preceding chapter. These diagnostic steps are needed in all cases counseled. In many cases where educational-vocational problems appear primary, a more detailed diagnosis is necessary before a desirable learning situation can be developed. Let us turn back to the first pages of the present chapter and consider such a diagnosis, following the structure that counselor Jones set for his systematic case study.

If we could read Jones's mind as it reflects on Williams' case, our telepathic literacy might yield the following interesting thoughts.

Emotional Condition (Present) and General Emotional Stability

The materials in the case history folder gave no clear indications of a current emotional disturbance or of emotional

instability of long standing. The observational records from high school are weighted positively toward adequate adjustment. The autobiography contained some false and some distorted information, but no bizarre notions were in evidence, nor were there illusionary or delusionary clues. No personality inventory, by that title, was included in the test battery but, under certain conditions, the Strong Vocational Interest Blank can be interpreted to yield results comparable to some of those found in the scores of personality inventories. Inspection of the scores obtained by Williams gives no indication of conflicts in the measured interest pattern for the occupational keys. The nonoccupational scales yielded no scores which are deviate, with the possible exception of Occupational Level. The medical history, brief and sketchy as it is, contains no hint of severe physical trauma that might bring about emotional unbalance. Jones could feel, then, at the beginning of the interview that he is unlikely to discover anything very startling about Williams' adjustment in this area. His original conclusion was not changed in the interview.

Social Adjustment to College, Community, and Home

From the folder Jones concluded that Williams' general social adjustment is probably satisfactory. But he warns himself not to confuse a high degree of extraversion with adequate social adjustment, as many beginning counselors are likely to do. He notes that Williams has participated in a number of clubs and sports. His personal information blank and autobiography indicate that his balance between individual and group activities seems satisfactory. He likes modern music and dancing. The interview yielded "normal" attitudes regarding "dates" and a not too eager outlook toward social groups such as fraternities. His personal appearance and behavior gave indications that he would be acceptable socially. Jones tentatively clears this area of being a major trouble spot.

Educational Planning: Capacity, Interests, and Motivations

Williams has made one major educational decision, that he will obtain a college education. His junior and senior high school records, because they are derived from an academic college preparatory curriculum, have not yielded too much information useful in differentiating ultimate educational-vocational goals. They show that it is probable that he can "go through" college but they offer little evidence as to his probable success or failure in such different fields as business, education, medicine, art, or engineering. As is characteristic of many test records, the results of Williams' academic intelligence tests are partially invalidated because we know so little about how each one was administered and scored. However, because they are consistent, Jones assumes that he can use them if he does so with caution. They tend to confirm the high school grades and the one-semester college record, which show that Williams probably has average scholastic competence as a student in a university which attempts to hold to relatively high academic standards.

The college entrance testing battery indicates that, in those subject areas which are most dependent on a verbal factor, Williams has performed at a relatively high level compared with equally able students at Y University. His weakness in dealing with quantitative data is consistent with his grades in both high school and college. The interest inventory shows congruence between his verbal achievement and his measured interests in verbal-linguistic pursuits.

His vocational planning is not judged by Jones to be so poor as Williams thinks. *No decision* often is a better condition than an *inappropriate decision.* Registration in a general education sequence, which involves a minimum of possible academic backtracking and lost time when transfer to a professional school is finally made, is, in itself, a form of insurance against too dire consequences from earlier indecision or poor educational plans. Jones is not too dis-

turbed about this matter of no choice, nor would he be if Williams were nearing the end of his sophomore year.

Vocational Planning in View of Capacity, Interests, and Motivations

Jones is quite certain that Williams is in a real quandary of vocational indecision. There are no records of work experiences or hobbies which appear to point directly to sound vocational choice. The autobiography demonstrates that he has both erroneous and fallacious information about the two occupations—engineering and medicine—which Williams has most on his mind at the moment. Certainly Jones will make illuminating and accurate materials on both professions available to Williams. These will permit him to be more soundly informed if he wishes to be. His pattern of academic subjects and the grades he earned lead to a tentative conclusion that any scientific or technical field at the professional level is not promising for him. While Williams does not give indications that he is highly extraverted as compared to a college freshman population, he is enough so to suggest that he can handle work in the verbal and human-relations fields. His major strengths tentatively corroborate this idea.

The Strong Vocational Interest Blank scores do indicate secondary interest patterns in a technical field and in the verbal-linguistic area.[8] A weak tertiary pattern is indicated in the welfare and business-contact areas. Perhaps the most interesting point in the interest profile is the high standard score on the Occupational Level scale. If this is a clue to the fact that he has a strong drive toward status and prestige, it may indicate the source of Williams' anxiety about ultimate educational-vocational choices so early in his college career.

[8] Darley, John G. *Clinical Aspects and Interpretation of the Strong Vocational Interest Blank.* New York: Psychological Corporation, 1941.

Williams is young. The semester-by-semester grind of completing college is part of the testing ground, the results of which will clarify his vocational choice. Delay of the choice for a year or more may not be particularly damaging to Williams, may, in fact, be the best thing to do. Of course, if he wishes to make an immediate choice he is free to do so, and Jones will give him all possible help in coming to a quick but rational and firm decision. Perhaps if he made up his mind now his academic work would improve although Jones reminds himself that this does not always follow.

Religious, Moral, Ethical Outlook, Maturity of Personal Philosophy

In this area, Jones has thus far drawn a blank. Insight into these personality variables is not easily gained through use of the kinds of data found in Williams' case history folder. Nor could one short interview be expected to open these doors to a counselor unless he were a genius. The autobiography, structured as it is, does not tap this general area. Perhaps another type of autobiography, aimed to open up these aspects of personality, could be drawn from him after rapport has been well established. If Williams continues his contacts with Jones over two or three more interviews, at fairly long intervals, Jones feels he may be able to gather information which will help his diagnosis of this counselee as a whole person.

Financial Status, Present and Near-future

The information here permits certain inferences the validity of which can be checked readily by Jones in later interviews. Assuming correct completion of the personal information blank, the Williams family is in comfortable middle-class circumstances. The father's occupation as a small businessman, ownership of the home, educational level of the parents and siblings, plus the incidental types

of part-time work, all indicate that there is no serious financial stringency. Although Jones cannot be certain, there appear to be no pressing financial problems in the immediate future.

Aptitudes and Abilities

One of Jones's chief aims as a counselor is to have Williams make a reasonably clear, complete, and accurate assessment of his aptitudes and abilities. There are a number of methods by which both of them can together reach this goal. Jones will structure the interviews in the future to make use of the *field-level* concepts.* (The fields in which he wishes Williams to make judgments are academic, social, mechanical, clerical, musical, artistic, and physical agility.[9]) Jones's present tentative diagnosis of aptitudes, to be followed by additional tests, autobiographical materials, and interview probing, is as follows:

Field	*Level* (Percentile of norm)			
	1–25	26–75	76–90	91–100
Academic		*	†	
Social		*		
Mechanical	No information			
Clerical		*	†	
Musical	No information			
Artistic	No information			
Physical agility		*	†	

* College freshman Y.
† Men in general.

If this diagnosis of educational-vocational aptitudes and abilities is found to be a valid and reliable one, Jones and Williams must then determine cooperatively those curriculums in the university and those vocational outlets in the

* For a review of the *field-level* concepts see pp. 205–257.

[9] Paterson, Donald G., Gerken, Clayton d'A, Hahn, Milton E. *Minnesota Occupational Rating Scales.* Chicago: Science Research Associates, 1941.

community which will probably be most satisfying to Williams. Williams will make the choices; Jones will contribute his knowledge of the university, the community, and secondary sources of information to which Williams can turn in learning about himself, his chosen occupation, and his environment.

General Personality Integration

So far in the counseling process the data, impressions, and cues with which Jones has to work do not offer a solid platform from which to make diagnosis of this most important factor. On the surface the signs are plus, but Jones is cautious. If Williams arrives at a satisfactory solution in three or four interviews, Jones may not even then have reached any conclusions as to his personality integration. If he and Williams become better acquainted over a period of time through further counseling, classroom associations, or informal relationships, a diagnosis in this area may become a possibility. Meanwhile he sets it aside. If Williams' condition indicated a need for extended psychotherapy, Jones would be much more concerned with the personality gestalt.

Life Goals and Their Relative Importance

Jones assumes that the life goals or desires of his counselees are important. They are important for Williams to know about himself, and important for Jones to know in structuring his interview learning situations. Jones uses a simple form of psychograph as a teaching device. This psychograph includes six areas, or goals, which represent broad categories of personal needs. These are

Security. The desire for a moderate standard and scale of living in the present; job security at a rising level during the work life; and freedom from poverty and dependency in old age.

Personal satisfaction. Vocational and avocational pursuits which yield satisfactions to the individual without income, security, or prestige being stronger drives.

Service to others. Occupational outlets which center about the welfare of society and its individual members. Social case work, the ministry, teaching, counseling, and nursing are examples of such occupations.

Prestige. The drive to be looked up to by one's peers and colleagues; to hold positions and perform duties which carry social recognition as an important person. An example of this goal is often found among those who wish to enter medicine chiefly because the physician stands so high on the community prestige scale.

Financial rewards. The desire for material payments appreciably above those of others in similar socio-economic brackets. This goal is loaded with factors relating to *power over others, prestige,* and *security,* but cannot be identified exactly with any one of them.

Power over others. The desire to command and direct the actions of others. This goal is also loaded with *prestige* and *personal satisfaction* as well as others but is wholly congruent with none of them. Vocational outlets are armed service officers, police, politicians, executive and managerial jobs.

On this psychograph, counselees are requested to indicate which of these goals is most important at the present time and then to rate each of the remaining five as to its relative importance. Only one goal can be indicated as most important. Williams will be asked to fill in this form at the next conference and it will be used as a basis for discussion then or later. Jones recognizes the possibility of significant changes with time in the pattern of goals which Williams will select at present. This, however, does not disturb him, since he knows that the important thing is to have achievable goals and to be struggling toward them. Williams can be expected to make shifts in his desires as he grows older. What money he gets, what friends he makes,

and other basic factors will condition his unfolding pattern five, ten, or more years from now.

Recapitulation and Summary

In this chapter the authors have endeavored to afford some insight, however incomplete and elementary, into the counseling process followed by a general clinical counselor faced with a counselee who claims to have educational-vocational problems. A "simple" case was selected to demonstrate that, no matter how simple, there is need for careful diagnosis. It is far better to treat all counselees as if their problems were infinitely complex than to treat a case that is complex as if it were simple. It is hoped, therefore, that a kind of systematic structure of investigation has been outlined and high-lighted so that cases may be reviewed with a minimum of wasted effort. The clinical psychologist working with student problems in an educational institution has always the responsibility for being quite certain that a real problem and its causal relationships have not been overlooked.

No attempt has been made to present a completed case. For one thing, no case can ever be considered as finished until the counselee is graduated or is out of the purview of the counselor. Williams may find a number of new situations with which he feels he needs help. Another point of importance is that a neatly packaged case in a book of this nature seldom fits exactly any "live" case. There are no neat counseling packages. Further, it is doubtful that anyone can ever *tell* another person how to counsel in the sense that he can tell him how to fry an egg or operate a can opener. It should be evident that the arts, skills, and sciences involved in sound practice of psychology must be had the hard way through instruction, supervised internships, and long practice.

Hence the incompleteness in the case study contained in this and the preceding chapter is by design. With pressures

of time and budget, few counselors in educational institutions will ever be in a position to do a really complete counseling diagnosis even if they are able to do so. The references at the end of the chapter contain materials which should be helpful if the reader wishes to pull together a comprehensive outline of most of the possible facets of a case study.

One of the most important topics dealt with is that of diagnosis. The general clinical counselor should keep in mind the following two aspects of diagnosis presented:

1. General diagnosis for the purpose of determining the advisability of continued counseling by the original counselor, and
2. Specific diagnosis for the purpose of analyzing the student's problems so that an appropriate counseling structure can be developed for the individual.

Above all, the authors desire to press the importance which they attach to an eclectic interview therapy. It is our strong conviction that successful therapy does not lie in a single direction. The effective counselor in the field of general clinical psychology must have many tools and techniques at his disposal for diagnosis as well as for therapy. The two ends of the counseling continuum—"directive" and "non-directive" interview therapy—are merely extreme types of all the different methods which may be found useful in a particular case with a particular type of problem.

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Chapter 11. PROGNOSIS AND PREDICTION

The two terms, *prognosis* and *prediction,* are used to indicate two related but not identical concepts. *Prognosis* is used medically to indicate the prediction of the course and termination of a general health condition usually in terms of the individual patient. In clinical psychology the term is used in a similar sense to indicate the course and probable termination of faulty adjustment of the individual client. *Prediction,* on the other hand, is used frequently by the psychologist to give a statistical connotation. We predict through knowledge of relationships expressed by statistical symbols such as correlations and the fiducial limits of probability. Certain types of individual or group behavior are predicted from the systematically observed behavior of a described group, or norm, under standard conditions which are approximated by the sample of behavior from another individual or group deemed to be comparable to the norm group. When such a process is followed, however, in predicting the future adjustment of an individual, we may refer to it as prognosis.

The psychologist, however, does not have neat, normed situations and standard performances which cover the majority of variables with which he works. One of the major functions of the long and careful formal preparation of these clinical workers is to develop the ability to use experience and clinical insights as substitutes for norms and rigorously controlled samples of behavior. The validity and reliability of the counselor in making clinical prognoses and prediction are essential factors in his success.

The general clinical counselor in educational institutions is also concerned with certain group predictions related to the success or failure of groups of students in the various curriculums to which they may be exposed. Such predictions are useful in the screening of new student generations, in the allocation of individuals to specific educational experiences, in counseling individuals, and in advising high schools, junior colleges, and other institutions which supply proportionately large numbers of new students to the upper divisions of college and university. This type of endeavor is usually designated as *prediction studies.*

Every clinical counselor is continually involved in the process of prognosis and prediction. He cannot escape it. These two words, in simplest terms, mean the forecasting, the anticipating of what the counselee is going to become and to do, in the future, either as an individual seeking better personal adjustment, or as a member of a body of, say, transfer students matched with a norm group. Every counselee comes to the counselor wanting to know, sometimes with mild and often with deep intensity, the answers to such questions as: "Where should I go from here? What courses shall I take with likeliest prospect of success and satisfaction? What occupation shall I train for? in what field? at what level? What are my alternative routes? What road blocks stand in the way of satisfactory achievement? Are these in me? or in the college? or in society? Can I remove them and clear the way without too much effort? What do you think of my chances of success? of giving service? of winning happiness? of making a fat income? of gaining a lot of prestige?" These and many more questions are asked or implied every time a counselee sits down with a clinical counselor to discuss an educational-vocational problem. Thus, the counselor is put upon a very hot spot indeed for, like the doctor and like the weather bureau meteorologist, he must play the role of seer, look into the future, and make forecasts that will prove valid and reliable. Unlike these others, however, he usually keeps his predictions to himself. In the last

analysis his own success in the profession of counseling will depend in large measure on the soundness of his foresight. He puts up a constant struggle, as does any other scientist, to take the guesswork out of his prognoses by gathering and weighing all possible factors, by winnowing out items of predictive value for each unique case from those that have little or none, and by checking and rechecking his forecasts against what actually happens in case after case, especially those in which his judgment was proved faulty. His batting average is not published in the papers but is a self-validation leading to better counseling.

The literature in this field is increasingly rich, but the areas still unknown and needing research and exploration are vast. It is the purpose of the authors here to give no more than a brief summary of the problems involved in prognosis and prediction, the theories hypothecated to bolster one approach or another, the factors that make it impossible to come even near to absolute accuracy; and to refer the reader to the major reported studies. Most useful to him will be Horst[1] and others, and Crawford and Burnham.[2] These, to which might be added Murphy[3] for a review of basic theories, and the report[4] of the OSS Staff for discussion of many of the difficulties and pitfalls, with the bibliographies and references in each, will serve to launch the reader toward comprehension of the many facets of this highly complex and difficult but essential task.

How one shapes his predictions depends first of all upon

[1] Horst, Paul, with collaboration of Wallin, Paul, and Guttman, Louis. *The Prediction of Personal Adjustment.* New York: Social Science Research Council, 1941. *Bulletin* No. 48.

[2] Crawford, Albert B., and Burnham, Paul S. *Forecasting College Achievement.* New Haven: Yale University Press, 1946. Part I, "General considerations in the measurement of academic promise."

[3] Murphy, Gardner. *Personality: A Biosocial Approach to Origins and Structure.* New York: Harper & Brothers, 1947. Especially Part II, "Learning," pp. 161–330.

[4] OSS Assessment Staff. *Assessment of Men.* New York: Rinehart & Company, Inc., 1948. Especially pp. 395, 454–461.

his philosophic view of man and his personality. This view will be taken from somewhere along a continuum from the notion of absolute determinism to absolute free will. Extreme determinism would make prognosis a cut-and-dried business. If one believes that some all-controlling power, such as a directive god, fate, nature, the position of the planets and the stars at birth and thereafter, dictates every detail of what each human being shall be and do, then prediction is easy. All one has to do is to read horoscopes, manipulate a Ouija board, examine the bumps of the head or the lines of the hand, or stake out the channels along which fate moves. Or he may edge in on "science," analyze the counselee's "conditioned responses," or measure an I.Q., and assume that one or the other gives fixed and unchangeable results and is all-controlling. Feeding on this sort of fantasy, he will predict his counselee's success or failure in school and college, on the job, or in marriage. The proponent of an extreme doctrine of free will, on the contrary, will find himself wholly unable to make prognoses of any sort, for he will hold that anyone can be or do anything that he wants intensely enough. Trained clinical counselors assume a philosophical position somewhere in the middle ground—what Murphy,[5] following William James, calls a "soft determinism."

This middle-ground position is founded in a vast amount of research, most of that referred to in this book and great quantities beyond. Despite the fact that human beings vary from one another in a multitude of ways, and each differs from himself from one moment, one day, one year to another, there are many carefully wrought accumulations of evidence that certain dominant inherited factors are present in each one of us; that these cause us to react to ourselves and to our environment in generally definable and comparatively limited ways. This structure tends to shape behavior. There is other evidence that, as we approach maturity, we develop relatively stable value systems,

[5] Murphy, *op. cit.*, section on "Emergence," pp. 643–645.

methods of symbolization, interests, patterns of behavior which become combined into aptitudes, and, with experience, into abilities and achievements. In the broad area of these stabilities lie the concepts of conditioning, of dominance, of figure-ground relationships, of canalization, of persistence factors, of drives, of motivation. In them, the possibilities of refining and improving prognosis and prediction find a fairly firm anchorage.

On this point Murphy[6] has this to say:

But personality is a continuity, a continuity determined partly by inner forces, partly by impulsions from without, but maintaining a recognizable individuality, a constancy or recurrence of patterned tendencies such as permits the recognition of identity. This continuity would be a necessary postulate in relation to all those "dependable" characteristics of which one speaks, such as the "capacity of the individual for adjustment" or the ability to "take" what life presents. Not only must the stability be sufficient to permit carry-over from the test situation to a specific life predicament occurring a week or a month later; it must be sufficient to permit an over-all personality description in terms of a basic and continuing disposition.

However, lest we get too smug about our ability to identify and predict from these "continuing dispositions," Murphy continues with a warning that brings us down to reality and makes us humble about their being wholly solid and accurate.

He says:

Here, however, we confront a final paradox. Nothing is more certain than discontinuities, unpredictabilities in relation to new and different situations. Even the chemist, with his fine control of his data, no longer speaks of the fixed attributes of Mendeleev's 92 elements, for he knows that at very high temperatures there are hundreds of elements whose properties are unforeseen in classical atomic theory. The human personality can never be so defined as to permit precise prediction in new situations, not because of any necessary arbitrariness of be-

[6] *Ibid.*, pp. 84–85.

havior, but because the properties of the new situation have never been brought into the relation with the properties of the organism. If the situation is really new, new valences will be called for, untapped possibilities[7] released, earlier assumed adequacies found* inadequate. The individual is capable of a stable equilibrium at one point or in a broad area; but let the situation push upon him in a new way and he may move abruptly to a new and very different equilibrium. If one pushes a chair backward a few inches, pivoting it upon the rear legs, he can remove his hand and the chair will fall forward to resume the old equilibrium; but let him pass by a hair's breadth beyond a given point, and the old equilibrium cannot be regained. The chair falls backward to the floor, to come to rest in a completely new position and with no tendency to return to the old. Catastrophic situations,† or indeed *new* situations of any sort, lead to responses showing that, however deep the continuities within a person may be, new centers of equilibrium exist; a new relation with the environment may be established. [Here Murphy returns to a more optimistic view.] Much depends, of course, upon the individual's‡ age and experience, his achieved stability.

[7] *Ibid.*, Chap. 19, "Creativeness," pp. 452–478. Consider also many examples of introverted "timid souls" who have performed deeds of astonishing heroism in combat or hitherto "dumb" and apparently ignorant and limited personalities which, under "new" circumstances, have displayed astonishing and certainly unpredictable insights and "created" powerful ideas, great works of art, luminous literature.

* From his record, as Robert Sherwood points out in his *Roosevelt and Hopkins* (New York: Harper & Brothers, 1948, pp. 38–39), as an engineer and director of food relief to Europe after World War I, Herbert Hoover, the "Great Humanitarian," might have been predicted to be the solver of the problems of the depression, the creator of the New Deal. Instead, the new circumstances showed that he had not the particular qualities of leadership or the methodology to meet these specific new needs.

† Such as war, loss or sudden acquisition of a fortune, sudden death of a beloved, or perhaps the various Metrazol, electric, or insulin shock treatments in the therapy of psychotics, or recovery from cancer or polio or tuberculosis.

‡ Note in this connection Strong's findings that interests are not accurately measurable before approximately age fifteen and that after

It may take a major cataclysm, or only a persistent annoyance, to cause a crack-up; similarly, *any* redirection of the whole person depends both[8] on inner stability and on the force of the hammer blow directed against it.

In our brief review of the philosophical and theoretical bases for prognosis and prediction we should not overlook the contributions of Terman, Sullivan, Burks, Oden, and others in their long and patient studies of genius.[9] Because none of the case studies have been reported in detail as such, we cannot deal adequately with their process of prognosis, but the results are extraordinary in terms of possible predictions about the vocational, educational, avocational, adjustive, marital, and other factors for similar individuals and groups. It is a truly startling demonstration of the kinds of cautious predictions which the competent psychologist can now make. The evidence is heartening testimony to the basic stability and predictability of normal human behavior and adjustment.

Within this philosophical and theoretical framework, other researchers have operated in many fields over the past quarter century to develop practical applied techniques of prediction. Studies of mass behavior have centered upon

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that period they tend to change very little. Most of us seem, with age, to settle into patterns making for predictability.

[8] See Grinker, Roy R. and Spiegel, John P. *Men under Stress* (Philadelphia: The Blakiston Company, 1945), for full discussion of the variation of the thresholds of resistance to the "hammer blows" of combat conditions among the American Air Forces during World War II, and their presentation of criteria and methods for refining the prognostic and predictive devices for prejudging these thresholds before men are selected and trained for such services. See also the OSS Staff, *op. cit.*, pp. 102–112, for descriptions of the various tests and projects they used to predetermine the breaking points of their candidates and the degree of tension necessary to upset their equilibrium.

[9] Terman, Louis M., and Oden, Melita, H. *The Gifted Child Grows Up.* Stanford University, Calif.: Stanford University Press, 1947.

population and social trends; the business cycle, consumer desires and needs as related to local, regional, and national advertising, production, and distribution of goods and services; forecasting elections; and analyses of the popularity of programs and persons on the screen, over the radio, and now in television. Similarly, prognosis of individual behavior has made great strides. Medicine is now able to forecast the progress and probable outcome of the course of a disease in a single patient with far greater reliability than ever before. The armed services in World War II did a far better job than at any time in history of assigning men to branches of the service and to specific tasks on the basis of diagnosis and prediction of behavior, despite the great mass of men involved. Business and industry have much improved their selective and training processes by occupational, job, and worker analyses and the prediction of potential success of the one in the other. Hazards to the life and health of the individual and to groups have been somewhat reduced by forecasting the "accident proneness" of machine and transportation operators and switching them to less risky jobs. Marriage counselors and clinics, investigating the sources of conflict and adjustment in the family, are becoming more accurate in the prognosis of happy marriages and those headed for the rocks of divorce and desertion. And many high school, college, and university researchers are constantly seeking for better tools to discover the aptitudes, interest, and motivations upon which predictions of success or failure in one or another curriculum, or transfer to higher levels, can be based. Concerning progress in this field Crawford and Burnham[10] offer the following criticism:

A successful aptitude test reliably measures qualities essential in successful future performance, by sampling previously acquired skills associated or antecedent to those qualities, but without introducing elements which can only be acquired from

[10] Crawford, and Burnham, *op. cit.*, pp. 4–7.

the proposed future study. Such examinations attempt to forecast subsequent progress by evaluating its known precursors. The child is still the father of the man. . . . Within the field embraced by these definitions, the present undertaking is restricted to the still more limited area which, for convenience, may be called that of measuring *educational aptitudes.* We are here concerned initially with individuals' abilities to acquire, by whatever means, knowledge and skills demanded for specific curricula of schools and colleges. . . . We may take as analogous to so-called "achievement measures" in education . . . various "trade tests" designed to measure an individual's *attained skill* in a particular job or his knowledge of operational processes. The corresponding parallel to educational aptitude tests is afforded by instruments designed to measure the (as yet) untrained individual's *potentiality for acquiring* vocational skills —that is, his "teachability" or apprenticeship promise. It is somewhat startling to realize that *capacity to learn* has thus far received greater attention from various business and industrial fields (largely because of its effect there upon operational costs and profits) than from education, whose primary concern it should be. . . . It may be noted, however, that academic counterparts of industrial aptitude testing, and even "job analyses" of a sort, at last are gaining considerable recognition even from educators.

These authors, as the title of their book *Forecasting College Achievement* indicates, concentrate their analysis and exposition upon "mental power, in the sense of relative promise for one or another field of study." They make a strong case for aptitude testing in the sense of "differential readiness to learn" as a basis for prediction and as opposed to the all too common achievement tests, which, they say, while giving some indication of a counselee's retention of things learned in the past, "often fail to suggest his promise for other fields to which he has *not* been exposed," and which may, therefore, "sometimes prove inadequate or actually misleading. His strongest intellectual powers may be latent and as yet uncultivated through lack of recognition or opportunity." They hold it essential, therefore, if prediction is

to be even relatively reliable, to make a thorough inventory of every student's every potential ability by means of aptitude testing. They warn against basing individual prognosis solely or largely upon generalized tests of academic intelligence since, however fair these may be for all students of a certain grade or level, they "are too generalized for directional significance." They stress, also, the concepts of differential "primary" as well as "secondary" aptitudes, of unitary traits, of the necessity for combining these into various configurations of educational and vocational significance, the need for the refining of present instruments and the development of new ones, the administration of batteries of such tests, the adapting of these to different regions, localities, and institutions, and the applying of the most expert and careful statistical processes to the results, if prognosis and prediction are to be improved.

Horst[11] and his associates broaden the base of discussion of prediction. They focus upon statistical method but strongly stress the case study as a vital element. They also effectively describe the process. They say in part:

> The study of the prediction of individual adjustment affords an excellent opportunity for the development of scientific method in the psychological and social sciences. It involves the theory of probability and all its possible mathematical and statistical applications. By means of some of the newer statistical methods, it should be possible to increase considerably the efficiency of prediction. Through the use of case studies it is possible not only to suggest new and better predictive items for further statistical treatment but, often by isolating what seem to be trends of dynamic factors within a given personality, to permit direct prediction for individual cases. The combination of statistical and case study methods . . . should make possible considerable advance in the efficiency of methods of prediction.

Of the importance, both social and individual, of increasing the validity and reliability of prediction, they continue:

[11] Horst, *op. cit.*, Introduction, pp. 1–11.

From the standpoint of practical applications in society, better efforts at prediction will be of untold value. For a nation or society as a whole to be most efficient and happy, it is important that its members be engaged in the work for which they are best fitted; that men and women be mated so as to achieve maximum marital happiness and family satisfaction; that the amount and kind of education given its youth be adapted to their capabilities; and that the number of its members confined to penal institutions be no greater than is absolutely necessary for the safety of the community. Finally, from the standpoint of the individual, the development of scientific techniques for increasing the probabilities of his making a successful adjustment to his environment has potentialities ample to justify prolonged and concentrated research.

It is clear from their further analysis of the problem that the *process* of prognosis and prediction is the same whether it be applied to one or another aspect of man's attitudes, interests, behavior, and activity. It consists of five major steps here paraphrased for a convenient check list for the readers.

Step 1. The accumulation, by means of "job analyses" in the broader sense used by Crawford and Burnham, of indices, measures, or criteria of what makes success or failure in, say, the study of chemistry or English or foreign language, or in a given professional or vocational task, such as the professions of nursing, teaching, surgery, or concert pianist, or in getting along cooperatively with husband or wife, is necessary. Such criteria must be described and defined in clear and unequivocal terms which are as specific as possible.

Step 2. The gathering, analysis, interrelating of test and case study factors present in "successful" persons and lacking in "failures." Thus, if it is found in an adequate number of successful teachers of English literature that they have had homes in which there were many books and magazines covering a wide range of material; that both parents were avid readers; that the teacher himself had read widely, had achieved high grades in English courses in high school and in a major in college, had A rating in English teaching

on the Strong Vocational Interest Blank, had achieved high percentiles in speed and comprehension in reading literary materials, had high Persuasive scores on the Kuder Preference Record, had top scores in Theoretical, Aesthetic, and Social areas on the Allport-Vernon Scale of Values, each of these items might be used as a criterion for predicting the potential success of a college senior as an English teacher. Many of these data would be of value for predicting academic success for freshmen in a literary curriculum. Similar directly related discriminatory items may be found for predicting success in any activity. In addition, it is important to gather and analyze factors[11] that are indirectly related. For example, marriage to a wife of similar literary tastes and interests may richly contribute to success in English teaching, whereas being mated to a predatory woman whose chief drive is for high income and social prestige may negate all or most of the main predictive factors. In any case it is clear that a vast amount of background data must be winnowed for prognostic and predictive items.

Step 3. Combining the direct and indirect predictive items to yield a general prediction rating for each individual as compared with the "successful" and "unsuccessful" norm group.

Step 4. Trying out the prediction items on a control group and checking the results.

Step 5. Applying clinically to individual cases these predictive measures, making prognoses, and validating these by all possible means, particularly by short- and long-time follow-up studies (see Chap. 12).

[11] For an elaborate analysis of some of these indirectly related but important factors in predicting job success and satisfaction see Friend, Jeanette G., and Haggard, Ernest A. *Work Adjustment in Relation to Family Background.* Stanford University, Calif.: Stanford University Press, 1948. *Applied Psychology Monographs* No. 16. Also Grinker and Spiegel, *op. cit.*, Chap. 4, and their treatment of infantile dependence upon mother or father, "Momism," and other indirect factors in their bearing on the success or failure of personnel in the air forces during World War II.

From this brief summary it can readily be seen that the processes of prognosis and prediction involve: (1) casting back into the *past,* analyzing and structuring what can be learned of dominant dynamic trends in the characteristics of both the counselee and the environment in which he grew up and developed, and studying the interplay between him and it; (2) discovering by means of tests, case histories and interviews, and other available techniques his *present* powers, interests, attitudes, levels of achievement, and especially his latent or embryonic aptitudes, plus the determining of how "good" or "bad" his present environment may be—his college, his family, his friendships, his job—as a source for his vigorous development of all these characteristics or as a means of frustrating them and drying them up; and (3), finally, projecting both his personal and situational lines of force, and their probable interrelationships, into the *future,* both in fairly firm, short spans of time and in much more tentative long spans.

The whole study of the individual counselee, of his situation, and of the interrelationships of these, past, present, and predicted future, must be subjected to constant reference to, and control by, statistical operations. Accuracy of prognosis may be increased only by a counselor who is thoroughly grounded in the concepts and application of norms, percentiles, coefficients of correlation, probability and chance factors, means, medians, significant differences, and the rest. Only by employing *all* available and pertinent tools and techniques can a counselor or his counselees have any firm confidence in his predictions. Too many counselors in the past have, out of ignorance or laziness or incompetence, leaned too heavily on single types of instruments such as tests alone, interviews alone (as in Rogerian counseling), case studies alone, or statistics alone. Full combinations of these must be made if the "click" effect of Williamson is to be in reality any more than an emotional, and probably quite misguided, hunch. To avoid this common fault, to improve the accuracy of prognosis and prediction,

the reader is advised to devote continuing attention to the basic literature in the field as suggested in this chapter, to the bibliographies in the references, and to the reports of researches now and in the future in process.

It is clear from all this that in answering the question "How far ahead can we predict?" we must distinguish between the specific and the general. Attempts to predict on specific things a long way ahead into the future must always smack of quackery. Our formula, therefore, is that the more specific the item the shorter is the time for which valid forecast may be made. On broad trends or field analysis one may project as much as twenty-five years ahead and not miss by a very wide margin provided there is no cataclysmic or disastrous event which, as has been indicated, may force almost unbelievable differences in behavior to appear. Even then, the skilled counselor is on the safe side if he casts his long-range predictions in general terms, relates his analysis of an individual to a statistical orientation, and says to himself no more than that the counselee is likely to make a *better* or a *worse* adaptation of himself to circumstances or to suffer little or no change.

In summary, it may be reiterated that there are four basic reasons for making predictions:

1. To improve one's counseling by matching up successes with mistakes in prediction, identifying the causes of both success and failure, and working to eliminate the cause of error.
2. To assist academic advisers in making their advising more effective by refining prediction in short-time specifics so that they may better take the guesswork out of helping students to pick courses and curriculums.
3. To increase the efficiency of referral to related agencies for help with counselees.
4. To furnish predictive data to administrators to guide institutional changes in policy, student selection and admission, curriculum building, and the like.

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Chapter 12. THE EVALUATION OF COUNSELORS AND COUNSELING

In preceding chapters attention has been given to the need for research to establish the reliability and validity of tools and techniques of the clinical psychologist engaged in the practice of counseling. In bringing this book to its close the writers believe the final chapter should be devoted to emphasizing again the importance of evaluating not only the counselor and his practices but also the larger gestalts of operation and activity in which he works.

This belief rises in large part from the paucity of comprehensive research and evaluation reported in the literature of psychology. A few outstanding examples of such evaluations are well known. These include the longitudinal studies of Terman and his associates in their studies of genius, the singleness of purpose which has characterized the work of E. K. Strong and Frederick Kuder with measured interests, the Minnesota mechanical ability studies, and the Employment Stabilization Research Institute investigations by the same group. Since 1945, Lowell Kelly and his associates, working with the Veterans Administration and other agencies, have planned and executed extensive research projects which give promise of further valuable insights. However, these and other investigations of comparable scope are the exceptions and not the rule. Even cursory reading of the current psychological journals impresses the reader with the individual and fragmentary research which, while valuable, furnishes us only with pieces

of material that may lead in time to coordinated efforts which will move us more rapidly toward answers we badly need.

Professional groups interested in improving the practice of the clinical psychologist are keenly aware of the impelling need for such coordinated research to bind together, and give larger meanings to, the continued efforts of the individual researcher. Several divisions of the American Psychological Association are pushing over-all and team research activities. The American College Personnel Association directs increasing attention to the evaluation of the counselor's work. The National Vocational Guidance Association has interested itself in the assessment of total programs. Despite these efforts, professional counselors everywhere, like physicians and psychiatrists, are so swamped with demands for clinical services that evaluation and other research does not move forward as rapidly as we would have it.

Because the general clinical counselor finds his functions so closely tied to both the formal and the cocurricular aspects of educational institutions, it is difficult to separate researches directly concerned with professional counseling practices from those of which the primary concern is the improvement of teaching practices. It is equally difficult to separate program research in student personnel work from that directed to improving the administration of educational institutions. The writers have attempted, in the face of these hazards, to be consistent in their allocation of materials to evaluation and research which bear primarily on the counselor's problems. Some readers will disagree and, perhaps, on sound grounds.

Classification of Evaluation and Research

There have been a number of methods for classifying evaluation and research efforts. No one of them has been generally accepted in the area of clinical psychology in which the general clinical counselor operates. There are a number of categorical structures into which research and

evaluation activities can be classified. Froehlich[1] in 1947 presented one approach to categorization of evaluation and research using the headings "External criteria," "Follow-up," "Client opinion," "Specific techniques," "Within-group changes," "Between-group changes." Because of what seems to be an overlapping in these categories the writers use a modification of them in this chapter.

Generalized Program Evaluations

The counselor must operate in terms of the educational philosophy, organization, type of student population, and budgets in his local institution. The general educational climate of the institution and of the community which surrounds it are important factors in determining the quality and quantity of student personnel services which can be offered. The literature is replete with materials which describe student personnel programs in terms of local conditions. We cannot do more here than call attention to some of the more important and typical writings which are devoted to generalized evaluations of total programs. Because the materials are in the main descriptive rather than analytic researches, no experimental designs, in the usual sense of the term, are available. The reader will find additional materials in the bibliography at the end of this chapter.

One of the earliest comprehensive descriptions of a student personnel program in higher education is supplied by Lloyd-Jones.[2] This 1929 publication describes the building and operation of the program at Northwestern University. At about the same time Paterson[3] and his coworkers at the

[1] Froehlich, Clifford P. *Evaluating Guidance Procedures: A Review of the Literature.* Washington, D.C.: Federal Security Agency, U.S. Office of Education, Occupational Information and Guidance Service, 1947 (mimeographed).

[2] Lloyd-Jones, Esther. *Student Personnel Work at Northwestern University.* New York: Harper & Brothers, 1929.

[3] Paterson, Donald G. (and committee). "The Minnesota student personnel program," *Educational Record,* 1928, 9, Supplement 7:3–40.

University of Minnesota presented the elements of the extensive program then being developed in that institution. In 1932 Koos and Kefauver[4] published one of the most comprehensive reviews and analyses of the movement to that time. J. B. Johnston[5] presented telling evidence, at about the same time, relative to the problems of selection and success in academic institutions of higher learning. Although his *Job Satisfaction* was not written in relation to a college or university student personnel program, Hoppock[6] contributed research and other materials pertinent to dealing with young adults in a collegiate setting.

Williamson and Darley[7] combined in their book, *Student Personnel Work*, a how-to-do-it manual, three major aspects of evaluating professional student personnel work: surveys, analytic techniques, and research growing out of the service program. Williamson[8] concentrated on the analytic techniques in a generalized frame of reference, although much of the background for the publication was drawn from his long experience in building the Minnesota program.

As it is not the intention of the authors to devote this chapter to a review of the literature, we omit further consideration of other excellent program evaluations except to mention the group or workshop type of nonresearch evaluation. An example of this is Brouwer's[9] *Student Personnel Work in General Education.* This volume contains a résumé of the findings of the representatives of twenty-two colleges and

[4] Koos, L. V., and Kefauver, G. N. *Guidance in Secondary Schools.* New York: The Macmillan Company, 1932.

[5] Johnston, J. B. *Who Should Go to College?* Minneapolis: University of Minnesota Press, 1930.

[6] Hoppock, Robert. *Job Satisfaction.* New York: Harper & Brothers, 1935.

[7] Williamson, E. G., and Darley, J. G. *Student Personnel Work.* New York: McGraw-Hill Book Company, Inc., 1937.

[8] Williamson, E. G. *How to Counsel Students.* New York: McGraw-Hill Book Company, Inc., 1939.

[9] Brouwer, Paul J. *Student Personnel Work in General Education.* Washington, D.C.: American Council on Education, 1949.

universities who worked together over a period of years. The approach differs in several ways from that used by the authors of other works cited in this section.

The chief value of these descriptive evaluations of total programs lies in their statements as to the methods which yielded workable answers in various local situations. It is probable that we can never transplant a student personnel program from one institution to another without making sometimes drastic changes. Nevertheless, common successful structures in organization, functional allocation of responsibility, patterns of tools and techniques, and job descriptions will help one who is building a new program, or reshaping an old one, to select those aspects which will fit best.

Evaluation of Specific Counseling Tools and Techniques

In Chaps. 4 and 5 the tools and techniques of the counselor were considered and a specific bibliography supplied. At this point we recapitulate the importance of establishing not only the reliability of tools and techniques in competent hands, but also the even more desperate need for knowing the reliability and validity of counselor X. The literature is singularly lacking in such studies. Not only are experiments difficult to design for this purpose, but also clinical workers are not always eager to have their case work analyzed through research. Although we have labeled this section to indicate research and evaluation of tools and techniques, we might better have labeled it to indicate the need for evaluating counselor competence in their use.

Pepinsky[10] investigated the categories and syndromes of the problems of college students and in so doing also evaluated the amount of agreement among clinical counselors in their diagnoses of student problems through independent

[10] Pepinsky, Harold B. *The Selection and Use of Diagnostic Categories in Clinical Counseling.* Stanford University, Calif.: American Psychological Association, 1948. *Applied Psychology Monograph* No. 15.

case-reading techniques. The study indicates that, when diagnosis alone was in question, the counselors taking part had a fair degree of intercounselor reliability. No evaluation of how well these counselors could help counselees to change behavior in desirable directions is included, as the point was not pertinent to his research objectives.

Williamson and Bordin[11] collaborated in a series of experiments which did bear, directly and indirectly, on the matter of counselor validity and reliability, in regard both to counselor agreement in diagnosis and to judgment of the direction of client behavior changes made in terms of follow-up. The usual problem of acceptable criteria of validity was dealt with by general use of the pooled judgments of expert opinion. It should be noted that the references above deal with validation of the counselor's clinical insights into total systematic case studies and not with his efficiency in handling a single tool or technique.

The general clinical counselor in schools and colleges is concerned with all problem categories within the nonpsychopathic range, although, as has been stated several times, his major emphasis is directed toward educational-vocational problems. Our consideration of the evaluation of counseling would be incomplete if we failed to call attention to research in psychotherapeutic counseling. Snyder[12] has reviewed the significant researches in this field. His materials will be helpful to those interested in research and evaluation

[11] Williamson, E. G., and Bordin, E. S. "Evaluating counseling by means of a control group experiment," *School and Society,* 1940, 52:434–440.

Williamson, E. G., and Bordin, E. S. "A statistical evaluation of student counseling," *Educational and Psychological Measurement,* 1941, 1:117–132.

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[12] Snyder, William U. "The present status of psychotherapeutic counseling," *Psychological Bulletin,* 1947, 4:297–386.

methods in counseling. Muench[13] provides useful experimental design for the evaluation of counseling and certain of its tools, such as the Rorschach test, in his Applied Psychology Monograph No. 13.

Research into the general reliability and validity of the tools and techniques of counseling has been, in the main, fragmentary but voluminous. For example, research regarding tests and standardized inventories of various types has developed into a literature of its own. The test manuals are in themselves a huge repository of research findings. Such general sources as Buros'[14] *Mental Measurements Yearbook,* with its more than 1,000 pages of tightly written and selected subject matter, is some indication of how much there is. In the field of interest measurement alone we have such basic publications as those of Fryer,[15] Strong,[16] Darley,[17] and Carter.[18]

The research devoted to the measurement of academic intelligence and achievement has grown beyond the easy grasp of even the best scholars in the field. It ranges from complex factor analysis, represented by Thurstone and numerous others, to simple correlational relationships between a school grade and the score on a test. Personality inventories of the pencil-and-paper variety have also been evaluated with great consistency if not thoroughness. A

[13] Muench, George A. *An Evaluation of Non-directive Psychotherapy.* Stanford University Calif.: Stanford University Press, 1947. *Applied Psychology Monographs* No. 13.

[14] Buros, Oscar Krisen. *The Third Mental Measurements Yearbook.* New Brunswick, N.J.: Rutgers University Press, 1949.

[15] Fryer, Douglas. *The Measurement of Interests.* New York: Henry Holt and Company, Inc., 1931.

[16] Strong, Edward K., Jr. *Vocational Interests of Men and Women.* Stanford University, Calif.: Stanford University Press, 1943.

[17] Darley, John G. *Clinical Interpretation of the Strong Vocational Interest Blank.* New York: Psychological Corporation, 1941.

[18] Carter, Harold D. *Vocational Interests and Job Orientation.* Stanford University, Calif.: Stanford University Press, 1944. *Applied Psychology Monographs* No. 2.

glance at a review such as that of Ellis[19] gives one a notion of how much is available.

The experimental designs in much of the research mentioned briefly in this section fall into broad categories, one of which is the determination of relationships as indicated by product moment correlations between original measured status and a later status, between control and experimental groups, and between and among equated groups to each of which differential measurement or therapy has been applied. The mass of fragmentary research data cited, and the greater mass not cited here, is not to be conceived as giving evidence that we have explored enough or with great validity. Rather it is a measure of the many problems on which we have not yet made even a beginning. In the evaluation of counseling and counseling tools and techniques we need much larger resources than are usually at the command of individuals or individual collegiate institutions. It is probable that comprehensive attacks can be made only through organizations such as the American Council on Education, backed in turn by the foundations or by the Federal government. While we wait for this support to eventuate we must continue, each in his small way, to contribute to the needed investigations of a multitude of vexing clinical problems.

Evaluation by Counselees

A very common method of checking the soundness and acceptability of counseling services is through obtaining opinions from those who have been counseled. Every clinical counselor is continually made aware of the fact that his counselees are passing judgment on him and his work. He picks up their favorable or unfavorable estimates of him by many indices of acceptance or rejection of his methods, his personality, and the feelings of the counselee regarding the general worth-whileness of the total counseling process as it affects each of them. The cues discernible in the interview situation are often clear cut. These cues range from un-

[19] Ellis, Albert. "The validity of personality questionnaires," *Psychological Bulletin*, 1946, 5:385–446.

comfortable fixation on his person, a starry-eyed and emotional eagerness to believe everything he says or is imagined to have said, to complete rejection and stormy denunciation.

Beyond the clues to be had from the face-to-face situation, many others come from the counselees. Frequently they recommend, as in the Williams case (see Chap. 9), that their friends seek help from a counselor who has helped them or that they avoid one who has not. The flow of their gossip about counselors washes constantly over every campus and, as one form of assessment, helps to make or break the individual who attempts to serve them. Again, it is by no means unusual for a considerable number of counselees to keep in touch with an effective counselor by occasional visits or by correspondence, sometimes for a few months after the case is presumably closed, sometimes for many years. The authors still receive occasional word from counselees of fifteen or twenty years ago, commenting upon the pattern of their unfolding lives in relation to the analyses made and advice given in those distant interviews.

All of this sort of evaluation is casual, unorganized, not very valid or reliable, but, nevertheless, often giving comfort and encouragement to the counselor. At its worst it smacks of the "testimonial" racket, the "James Jones's ulcers were healed in thirty days by our Sorsoothe. It will heal yours" sort of thing. At its best, it produces a preponderantly favorable climate of opinion about a counselor that enables him to keep growing and working to improve his knowledge, insights, skills, and techniques of helping others to solve their problems. McKinney[20] and Bailey, Gilbert, and Berg[21] throw many side lights on the indirect evalua-

[20] McKinney, Fred. "Four years of a college adjustment clinic: I. Organization of a clinic and problems of counselees; II. Characteristics of counselees," *Journal of Consulting Psychology*, 1945, 5:203–217.

[21] Bailey, H. W., Gilbert, W. M., and Berg, I. A. "Counseling and the use of tests in the Student Personnel Bureau at the University of Illinois," *Educational and Psychological Measurement*, 1946, 6:37–60.

tion of counseling services by the client. In the studies of Williamson and Bordin cited earlier in this chapter, the method of having clients evaluate their experiences and the counseling outcomes was used. Paterson and Clark[22] also discuss the importance of client opinion following exposure to the counseling process.

In general the evaluation of counseling by clients is done through such methods as exit or special final interviews, personal follow-up, mail or telephone follow-up, and indirect estimates based upon case load analysis and the number of cases who fail to complete their counseling, with or without verbal explanation. The reliability and validity of such evaluation is not arrived at easily. Nevertheless, it is a method which must be included in research which attempts to evaluate the soundness of a counseling program. The feelings of the counselee about the process are of great importance.

Evaluation by Problem Type

Student counseling, like administrative and instructional services, is tied to institutional budgets. Few colleges or universities can afford a complete counseling service which includes psychotherapy, general clinical counseling, and complete psychiatric attention to students. Even when budgets are relatively large, allocation of staff time must be made within the therapeutic limits to which the program is committed by the general administration. There is little published information on the subject of case allocation budgetwise. Most educational institutions accept some responsibility for the educational-vocational counseling or advising of students. This, in part, is due to the close relationship which such counseling and advising bear to the formal instructional program. Students must make choices of curriculums, select major areas of concentration, and choose vocational outlets frequently related to these choices.

[22] Paterson, Donald G., and Clark, K. E. "Students' judgments of counseling," *Journal of Higher Education*, 1943, 14:140–142.

The orderly operation of a college or university depends in part on helping students make wise choices of this type.

In the experience of the authors at the University of Minnesota, Hampton Institute, Syracuse University, and the University of California at Los Angeles, from 65 to 75 per cent of the problems brought to the counseling center by students can be categorized as educational-vocational. The average number of interviews for such cases fluctuates between two and three for each. Williamson and Darley,[23] Bailey, Gilbert, and Berg,[24] and Hahn and Kendall,[25] support these estimates. Unpublished data from the counseling center, University of California, Los Angeles, also support these approximations. The authors recognize, of course, that "pure" problem types seldom, if ever, exist. This problem classification is one of convenience based on the major problem element diagnosed by counselors.

Even though student difficulties centering around social and emotional components are not so numerous as those in the educational-vocational classification, many counselors are quite definite in their estimates of the amount of time needed for clients with such involvements. Estimates depend, of course, on the obligations which the institution is willing to assume regarding psychotherapy. Where counselors work with clients well within the normal range of adjustment, the estimates of average number of interviews needed for social-emotional problems vary from five to seven. The range in the authors' experience is from one to over twenty.

This area of investigation is particularly important to the administrator in determining such matters as selection and employment, by type and experience, of personnel, number of counselors, psychometrists, and other professional and

[23] Williamson, and Darley, *op. cit.*

[24] Bailey, Gilbert, and Berg, *op. cit.*

[25] Hahn, Milton E., and Kendall, William E. "Some comments in defence of non-non-directive counseling," *Journal of Consulting Psychology*, 1947, 2:74–81.

technical workers, space and physical facilities, supplies and equipment, budget, relationships with instructional staff, and the general directions in which the counseling program should grow.

Evaluation by Faculty

Counselors must expect at all times to be judged by the faculty of the college or university within which they work. General faculty evaluation parallels that of students in that it is based primarily on impressions and scattered incidents and is subject to coloration by favorable or unfavorable emotion and prejudice. There are still many college teachers who tend to view all attempts to help students as "molly-coddling," as "unwarranted intrusion into the private lives of these young adults." They look upon counseling as prolongation of childish dependence. They want students "to learn to stand on their own two feet." Some have the illusion that high competence in academic studies inevitably is accompanied by stable emotional adjustment and ability to solve all personal problems, career choices, and the like, with precision and despatch. These continue to view counseling and counselors with a jaundiced eye. At the other extreme there are usually some of the teaching staff who welcome the specialized services as a relief from their own admittedly amateur and inadequate attempts to help students. In between are those who have a dominant interest in their students' welfare, who spend much time in friendly and helpful conferences with them, and who are glad to have clinical counselors to whom they may refer for supplementary expert assistance in much the same way as they refer their advisees to the health service when medical attention seems to be indicated. In addition to these teaching staff members there are always other faculty in counseling itself—the professional associates of the counselors—in medical service, in psychology, in speech, in reading laboratory, in academic remedial work, in nonacademic fraternity, sorority, and dormitory supervision, in financial loan offices,

in disciplinary committees, and the like, who inevitably evaluate an individual counselor on a number of factors, such as the frequency with which he makes use of their services, the sensibleness and clarity of his referrals, his ethical soundness and discretion in protecting confidential information, his skill in handling cases which they refer to him, his observance of social as well as professional amenities, his power to play the academic game within the rules or to violate these with diplomacy and caution when he must for the good of his counselee. While little formal investigation of faculty evaluation has as yet been done, it is clear that an important part of the counselor's answer to "How am I doing ?" lies in the opinions, impressions, and estimates of the colleagues with whom he is in frequent contact.

Evaluation by Administrators

One of the most important aspects of evaluation of the counselor and his counseling is that of the president, deans, directors, department heads, and other administrators in the institution where he works. They properly determine whether his salary will be high or low; his budget for tests and psychometric and clerical assistance fat or lean; his physical office and other space large and well enough equipped for all activities or cramped, dim, and tucked away in an almost inaccessible garret or tower; his case load light enough so that he can do a fairly competent job with each counselee, or so heavy that he can give no more than a lick and a promise to each, or neglect many and attend to a few. They can spread favorable reports of counseling among students, parents, alumni, and the public and thus win interest and support, or dry up that support with silence or skeptical comment. Thus in a hundred ways administrators can make the way rocky or smooth, depending upon how they evaluate the individual counselor and the service he gives.

For these reasons, it is essential that clinical counselors continually study the means by which they may help the school and college administrator by furnishing him with

information vital to the solution of many of his complex and difficult problems and to the formulation of academic and other institutional policies. A counselor adequately trained and effective can furnish the executive staff with information as to student aptitudes, abilities, interests, and attitudes that is more accurate and ample than can be had from any other source. Upon such data,* policies concerning admission, curricular expansion, extracurricular activities, discipline, and many other matters can be more and more soundly formulated. The authors are convinced that effective counseling supports administrative thinking and decision as nothing else can do. An administrator who *knows,* through hundreds of case studies, thousands of interviews, the ambitions, the qualities, the caliber, the interests of the students under his jurisdiction possesses firm ground for his decisions, is protected from blind blundering, is quite safe from most of the emotional explosions caused by the occasional disturbed neurotic or psychotic student. He has in his hands facts instead of nebulous notions or outworn traditions which have become fantasies in modern education. The reader can inform himself further of the many ways in which coun-

* For example, most of the policies of The General College, University of Minnesota, were initially shaped upon tentative studies made of its students by the counseling staff. These policies were modified and made firm by extensive personnel research investigations of the whole college population in one year, and an intensive study of 100 carefully selected samples from among these. Both were directed by John Darley and Cornelia Williams of the counseling staff, assisted by a technical advisory committee of counselors and psychologists from other branches of the university. The design of this research is reported in the *Technical Outline of the Adolescent Study,* and the results reported in Williams, Cornelia T. *These We Teach.* Minneapolis: University of Minesota Press, 1943. The authors—MacLean as then administrator of the college, Hahn as then director of the work in vocational orientation and counseling—are fully aware that it was the data revealed by effective counselors which made the process of developing the college sure-footed, enabled it to withstand attack and criticism, made possible the solution of problems of admission, transfer, curriculum building, student morale, etc.

seling supports administration by studying the Minnesota researches on students by Paterson, Williamson, Darley, Eurich, Stone, Pace, and Bordin in addition to that by Williams; those from Columbia by Thorndike and Kitson; those from Chicago by Thurstone and Remmers, from Michigan by Kelly, and from Syracuse by Clendenen, Ostrom, Cottle, and Kendall. In sum, every clinical counselor must be continually aware that he and his work are being evaluated by the administrative staff of his institution and that the development and progress of both are largely dependent upon his furnishing them with a flow of data about students in the mass and individually, data as valid and reliable as he can make them.

Evaluation by Other Counseling Specialists

Froehlich calls this the "expert opinion or Information Please method." An individual counselor or an entire counseling staff may feel that their work is running so smoothly that they grow suspicious that there must be something wrong. Or they may be convinced that the counseling situation is fouled up and they want the advice of specialists to help them straighten it out. Or they may merely assume that it is time for a checkup and seek out the outside and presumably objective experts who can do a sound survey and tell them how they are doing. Williamson and Bordin in a number of articles outline two methods of evaluation by such specialists.

1. A counselor presents one or more cases in detail to a staff conference of his fellow counselors. This meeting is also frequently attended by psychologists, a psychiatrist, a health service physician and other specialists only indirectly connected with counseling. The counselor is judged on the spot by any and all of these. They assess the adequacy of his data, his skill in the use of tools and techniques, the validity of his diagnosis, the soundness of the advice given, the probabilities of his prognosis and prediction being accurate, and the reliability of his interpretation. This

method of putting the individual counselor under fire on his individual cases not only serves to evaluate him and his work but is also considered by many to be one of the most effective means of training. It is widely used in psychiatric training. It is sometimes made even more effective by analysis, in staff conference, six months or a year later, of the same case by the same counselor with full reference to the earlier presentation and discussion of what has happened since.

2. A counselor from within or without the institution independently judges the work of a given counselor by reading with great care his case histories, records, test profiles, and notes, and rating him on the following points: (*a*) rapidity of identification of the counselee's major problem in the interviews; (*b*) rapport established as indicated by the attitude of the student toward the counselor and his work; (*c*) the scope and depth of diagnosis; (*d*) extent and adequacy of treatment, including use of referral to other diagnostic and therapeutic agencies; (*e*) completeness of the case record.

Another method occasionally employed is to invite in a crew of specialists from the outside to assess both the counseling service of the institution and the individual counselors and their work. This crew devotes from a few days to a week or two to active study of the system, records, methods, and personnel. Froehlich reports a comprehensive[26] appraisal of the Adjustment Service by a team of specialists. MacLean, in 1942, with Gene Carstater, then Director of the Counseling Service at Hampton Institute, invited Darley, Hoppock, and Feder to evaluate that service. The American Council on Education has made consultants in personnel work available to colleges and universities on the same basis. This sort of outside observation by specialists usually has a double-barreled effect in that the counseling staff to

[26] Coler, C. S., and others. *General Appraisals of the Adjustment Service.* New York: American Association for Adult Education, 1935.

be assessed cleans up and tightens up in preparation for the inspection and plunges with enthusiasm into reorganizing after it is over. In such cases the specialists are not asked to follow any set design and are left free to report their findings in any way they may see fit.

Evaluation by Measurement of Group Changes

Evidence of the success or failure of counseling is most frequently sought by means of short-time studies of changes occurring in a single group of students being subjected to counseling. Froehlich points out that these assessments follow two different designs.

1. The "within-group before-and-after" method in which each student serves as his own control. Each student is given a battery of pretests, preliminary interviews, autobiographical assignments, and the like. Judgments are made by the counselor as to the present status of the problems, attitudes, achievements, etc., of the individuals and these are totaled up to give a picture of the group as a whole. Then, at the end of the counseling period—a semester, a year, a two- or four-year span—they are subjected to a repetition of the same tests, similar interviews, etc., and the changes in grade-point average, occupational choice, general adjustment, etc., are measured. Thus some appraisal may be made of the effectiveness of the total counseling activity in bringing about desired changes, whatever these may be, and, usually by indirection, the individual counselor may be evaluated in part. Hedge and Hutson[27] evaluated a year's vocations course with 201 high school students and found a significant shift for the better in occupational choice and an increase in the average measured I.Q. Remmers and Whisler[28] found that a group tested on a scale of atti-

[27] Hedge, J. W., and Hutson, Percival W. "A technique for evaluating guidance activities," *School Review*, 1931, 29:508–519.

[28] Remmers, H. H., and Whisler, L. D. "The effects of a guidance program on vocational attitudes," *Studies in Higher Education* (Purdue University), 1938, 34:68–82.

tudes toward vocations and then subjected to a group counseling process showed some evidence of having abandoned some stereotyping of occupations.

2. The "between-group before-and-after" method which follows the familiar pattern of matching those counseled with those who are not counseled. Stone[29] evaluated a Minnesota course in vocational orientation by comparing a group who had had both the course and individual counseling with each of two groups who had had the one and not the other and with a fourth group that had had neither. By excellent design and careful craftsmanship, this crucial study showed clearly, among other results, that students gained more occupational information from the course than from haphazard incidental reading; there was no significant difference in salary expectation brought about by the course; the course alone did not cause students to make more appropriate occupational choices than did mere residence in college; students who both took the course and received individual counseling made the largest gain in optimal choices, whereas those who took the course but were not counseled showed the greatest decrease in optimal choices. This investigation, if corroborated by further researches, may serve to support the assumption that courses in vocational information alone may do more harm than good but that, combined with individual counseling, both may be increased in effectiveness (See Chap. 1 and Chap. 5 on the uses of occupational information).

Evaluation through Long-range Follow-up Studies

By far the most wide-ranging and elaborate of evaluation patterns is that of the follow-up study, or what Froehlich calls the "What-happened-then" technique. Most of the methods outlined above are cross-sectional and piece by piece. In contrast, the longitudinal process of assessment

[29] Stone, C. Harold. "Are vocational orientation courses worth their salt?" *Education and Psychological Measurement*, 1948, 2: 161–182.

ideally would follow the behavior and activities of counselees after counseling for the longest possible period of time, the data on these activities being checked against those of the cumulated case history gathered at the time of counseling and against diagnosis, prognosis, and prediction. In the field of personality investigation, which is by no means unrelated to evaluation of counseling, Murphy[30] says, in his discussion of "Continuity,"

> But direct studies of this continuity over long periods of time are shockingly few in number. To mention a few examples of those available: The Harvard Growth Study has supplied numerous (largely unpublished) year-by-year scores on tests; the Grant Study (also at Harvard) has recently begun an intensive longitudinal study of normal young men; The Cambridge-Somerville Youth Study recorded clusters of traits shown year by year by delinquent boys (these data are largely unpublished); masses of data (largely unpublished) of almost every conceivable sort were gathered from a hundred boys and a hundred girls studied during the age period ten to sixteen by the California Adolescence Study; and J. W. Macfarlane's intensive study of personality development in a large urban group covers the period from before birth to the present (the subjects are in their late teens at this writing; the data cannot be published until the study is completed). Some of these longitudinal studies may begin to be published within a few years.

These investigations, as well as the Terman studies of genius just now being reported, suggest the kind of long-time evaluations that should be made of counseling services and of individual counselors despite the obvious difficulties in terms of continuity, of keeping track of individual counselees or groups of them, and of costs in money and effort.

Pace[31] and Troyer and Pace[32] describe a combination be-

[30] Murphy, *op. cit.*, pp. 722–723.

[31] Pace, C. R. *They Went to College.* Minneapolis: University of Minnesota Press, 1941.

[32] Troyer, M. E., and Pace, C. R. *Evaluation in Teacher Education.* Washington, D.C.: American Council on Education, 1944.

tween-group and longitudinal method of evaluating counseling. Pace, as a part of an assessment of Minnesota's General College, evaluated by comparing intensive studies of the patterns of ability, interest, aspiration, etc., of students in college with those of former students who had been out of college for five and ten years.

Froehlich summarizes a considerable proportion of the literature reporting follow-up studies of usually much shorter duration, from one year to eight. The reader is again referred to his bibliography for review of many such direct investigations of the value and effect of counselors and counseling and especially to those by Williamson, Darley, Bordin, Ricketts, Viteles, Kefauver, and Hand. With increasing knowledge of how to design such longitudinal studies, with growing courage to undertake them and to preserve at all costs their continuity, with the development of new and refined statistical techniques, and with the cumulative effect of the reporting and comparing of investigations, we have promise of increasingly valid and reliable evaluation of counseling processes and of counselors.

Counselor Self-evaluation

In many ways, the most important of all evaluations is that made of the counselor by himself, since his internal image, the picture of himself in answer to the question "How am I doing?" will of itself, through its accuracy or distortion, control in large measure his present effectiveness and future growth and development in the profession. This image will be perforce created out of all the fragments of assessment by others, whether these be objective data or subjective impressions. He will blend the reactions of his counselees with reports of his reputation among other students. He will add what he knows of the appraisals of him and his work by administrators, faculty, and professional psychology and counseling colleagues. He will combine these with results of within-group, between-group, and more elaborate follow-up studies of him and his work. And he

will fuse them all into the image of himself-as-counselor by the fires of his own autistic feeling, fiery hot or merely warm depending upon the structure of his own personality. The final result may be a crippling sense of inferiority in the face of the complexity of the job and the recognition of his limitations, "the little known, the unknown vast." It may be an overweening confidence, a sense of superiority, of power "to play God." Or it may be a reasoned humility teamed with a willingness to go on, to learn, to increase skill, competence, and insight, in order that he may help others to help themselves. Obviously the latter is the optimum of self-evaluation. It can be most surely achieved if, from the beginning to the end of his labors, the counselor demands of himself and others continual evaluation, employs every means of assessment available to him to make it valid and reliable, and trains himself to "roll with the punches," to take and to profit by whatever results may be found.

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