Clients' recall and understanding of test interpretations are frequently incomplete. It has been shown that clients who receive test interpretations generally make greater gains in incorporating the results. This document presents a client centered approach to testing and interpretation. It explains how the client first participates in the selection of the general type of tests to be administered, and then with the help of the guidance counselor, learns how to interpret the test. This process helps reduce the chance of a client misunderstanding the test results or recalling them inaccurately. Test results in counseling constitute interventions that can facilitate change and lead to greater awareness, knowledge, and self understanding. This ultimately can lead clients to make more effective decisions. (Contains 20 references.) (JDM)
Communicating Assessment Results in the Counseling Interview

By
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Chapter Fifteen

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Abstract

Clients who receive test interpretations generally make greater gains than those who do not. Yet clients' recall and understanding of test interpretations are frequently incomplete or inaccurate. A client-centered approach to testing and interpretation is described. The client first participates in the selection of the general type of tests to be administered, then the client plays the role of test interpreter, with counselor guidance. This process reduces the chance of a client misunderstanding test results or recalling them inaccurately.

The clinical use of psychological tests is typically included as one of the requirements in the graduate counseling curriculum through which the counselor-in-training is expected to become at least minimally proficient in the areas of test selection, evaluation, administration, and interpretation. There are test manuals, much testing literature, and good textbooks dealing with these subjects. An equally important subject—the communication of assessment results—typically receives scant attention, even though counselors are constantly required to interpret assessment results both to clients and to others such as parents, agencies, and other professionals. Effective communication is especially critical for counselors because in the end it is the understanding by the client or other individual who will be making decisions based on the results that will determine the actual application, if any, to which the assessment results will be put.

Most of us have acquaintances who have told us that their guidance counselor recommended on the basis of aptitude tests that they take a vocational program in carpentry or another of the skilled trades, but instead they became a social worker, a physician, or a college professor...
and are very satisfied and highly successful in this totally different career. In fact, they were probably not specifically told when they took the tests back in high school that they should become a carpenter, and their recall is probably quite selective. That it is not uncommon for former clients not only to mistake the type of assessment (ability, interest, or personality), but also to remember results selectively or erroneously, or to interpolate the word should into their interpretation—only emphasizes the importance of adequate client understanding (Zytowski, 1997).

Test Interpretation Research

How test results are reported or interpreted to clients and the accuracy of client understanding are extremely important but seldom studied aspects of counseling. Goodyear (1990) provided one of the first critical reviews of the literature in this area. He reported that studies generally show that clients who receive test interpretations—regardless of format and the particular outcome criteria employed—do experience greater gains than do those in control conditions. An interpretation of test results to clients, then, generally has a positive effect. A study by Finn and Tonsager (1992) provided support for Goodyear’s conclusion. When they compared attention-control participants with clients who received Minnesota Multiphasic Personality Inventory (MMPI-2: Butcher et al., 1989) interpretations, those receiving the interpretations showed increased self-esteem and optimism about being able to overcome their problems as well as a decrease in symptoms. Goodyear found little research evidence that outcomes are differentially affected by the type of interpretation employed but reported that studies have shown that clients generally prefer individual integrative interpretations over self-interpretations or group interpretations.

Most of the studies identified by Goodyear (1990) measured outcomes over relatively short periods, such as two weeks after test interpretation. Furthermore, most of the research studies on the interpretation of test results have been limited to career counseling and have been conducted with either high school or college students as subjects. Virtually none have been concerned with personal counseling, psychotherapy, or with couples and family counseling, even though test interpretations are often employed with such clients. The outcome criteria used in many of the studies dealt with the memory or recall of test results and were based on the major assumption that increased self-knowledge was not only desirable but also helpful for the client.

In general, studies of the accuracy of recall of interest inventory results have not been encouraging (Froehlich & Moser, 1954; Zytowski,
Correct recall of interest inventory results has ranged from 13% to 98%. Only 36% of college students contacted a year after receiving their Strong Interest Inventory (SII) results correctly remembered their highest general occupational theme score, and only 56% remembered their highest basic interest score.

In one study, students who had SII profiles interpreted to them in group settings were followed up a year later by means of a telephone interview (Hansen, Kozberg & Goranson, 1994). Respondents were asked about their recollections of their Holland code types, the high scores on the basic interest scales, and the occupational scales on which they received some of their highest scores. Of these students, 38% recalled the Holland theme with the highest interpretative comment, 62% recalled one of their six highest basic interest scores, and 77% recalled an occupational scale score that was in the moderately similar or higher range. Across all survey questions, the average recall accuracy was approximately 50%. More intelligent clients remembered their test results with greater accuracy—no surprise, as it would be expected that brighter individuals would have better recall of any information.

Early research did not seem to yield results that endorsed one type of test interpretation format over another (Forster, 1969; Gustad & Tuma, 1957; Rogers, 1954). Client preferences, however, generally favor interpretations conducted individually by the counselor, and these have been found to be the most effective in terms of favorability of client outcome (Oliver & Spokane, 1988). More recent studies clearly indicate that clients prefer integrative individual counseling as more attractive than test-centered individual or group interpretations (Miller & Cochran, 1979; Oliver, 1977; Rubinstein, 1978). The former format, of course, is considerably more expensive.

Studies have shown that clients generally accept positively worded interpretations more readily than negatively phrased ones (the Pollyanna effect; Sundberg, 1955). In addition, when the interpretation is value laden—for example, when abilities scores are the focus of the interpretation—that score is seen more positively and is more likely to be remembered (Dickson & Kelly, 1985). A problem with such studies is that they make no distinction between remembering and accepting test results. Most studies of test interpretation have used client recall of test results as the outcome criterion. The actual understanding or use of recalled results has seldom been investigated, although Goodyear (1990) did find several studies examining the accuracy of self-estimates of the characteristics measured by a test before and after test interpretation.

Several studies have dealt with so-called Barnum interpretations—generalized interpretations that often receive much credibility, such as those often found in horoscopes and astrological “personality profiles”
(Dickson & Kelly, 1985; Merrens & Richards, 1970). Barnum statements fall into several categories: the double-headed statement, the modal statement descriptive of virtually anyone, the vague statement, and the favorable statement. Studies of Barnum-effect statements have focused exclusively on personality interpretations and have found such statements enjoy exceedingly high client acceptance rates. In fact, clients often perceive generalized or even false test feedback based on astrology or Barnum-type interpretations to be more accurate than bona fide results. Several personality variables seem to be related to the acceptance of generalized personality interpretations, but there are no gender differences in this acceptance.

Accuracy of recall may be increased by providing more opportunities for depth of processing by the client. If the client actively forms many semantic associations with both new and old information during the interpretation process, this deeper level of processing should result in greater memory for the information. Clients are encouraged to actively connect the results to their own existing self-knowledge and potential career plans. The use of additional materials such as career resource books or other assessment tools also encourages the formation of such associations.

**Principles of Test Interpretation**

In counseling it is important to remember that there is almost always an implicit future orientation, even though the immediate goal is to help clients to make a particular decision or to understand themselves better. There is a belief that it is important for people to know themselves better because ultimately the self-knowledge gained in counseling and testing will enable them to have more effective and satisfying lives and to make wiser and more realistic plans.

It is necessary to have a thorough understanding of tests, particularly their theoretical foundations, if a counselor is to function as a professional in the test interpretation process rather than as a technician using a simple cookbook approach. Because tests are used to diagnose and predict, interpretations on the part of both the counselor and client must lead to the desired understanding and results. It must be remembered that a huge number of factors are involved in producing a particular test score. These include the clients’ inherited abilities; their educational, cultural, family, and other experiences; their experiences with other tests, particularly psychological tests; their motivation; their test anxiety; the physical and psychological conditions under which they took the test; and the random variation in the test itself.
Various types of validity become extremely important in the interpretation of tests. It is therefore important to understand the construction and development of the test as well as its validity as determined by its relationship to that aspect of the construct which it is purported to measure. In every kind of test interpretation, it is assumed that there is a definite relationship between the person's score or result on a test and what it is being related to. Often this relationship is expressed in statistical terms such as correlation coefficients, descriptive and comparative statistics, or expectancy tables. To ensure client understanding, these concepts need to be explained in clear, understandable language.

Assessment results may be communicated through a variety of modes—with counselor interaction individually; in a small group with discussion; or in a large group with little or no discussion and without counselor interaction, as in the case of a score report or profile with a printed explanation, a narrative report, or a video or computer interactive supplement (Goodyear, 1990). An interactive approach is to be preferred, as shown by a study that compared a counselor-delivered interpretation with a counselor-client interactive interpretation (Hanson, Claiborn & Kerr, 1997). Clients not only preferred the interactive approach but also perceived the counselors to be more influential, expert, and trustworthy.

**Client Participation**

One finding that has stood out in studies of test interpretation is the value of client participation (Dressel & Mattson, 1950; Goodyear, 1990). Client participation in the selection of tests emphasizes that testing is an integral part of the counseling process and not an interruption of it. Most people generally approach tests—particularly aptitude and achievement tests—with some anxiety caused by fear of failure. Even interest and personality tests can reveal aspects of a person's attitudes and personality that indicate weaknesses or undesired alternatives and therefore may also be seen as something of a threat. Anxiety regarding testing is likely to carry over to the entire counseling process and certainly to receiving the results in an interpretation interview. If clients assist in the selection of the tests, they are more likely to be convinced of their usefulness and therefore be more motivated to do their best on ability tests and to be accurate and truthful in responding to items on interest and personality inventories. Having participated in the decision to use the tests, clients can be more objective in their perception of the results of the tests. They are also more likely to accept the results and their interpretations with less defensiveness (Fischer, 1970).
In the case of vocational counseling, clients tend to be dependent and test oriented. This emphasis on the test is a problem that often confronts educational and vocational counselors. Participation in test selection may also discourage the client from becoming dependent on the counselor, because the client accepts some responsibility for the selection of the testing instruments. A client’s reactions to the suggestions and descriptions of the various tests can also provide useful information to the counselor. If the counselor is sensitive to the client’s feelings about various aspects of the testing, these perceptions can lead to an informative examination during the interview or in a later session. Client participation in test selection may also lead to the selection of more appropriate tests because clients can help counselors understand what they already know and what they need to know.

There are, of course, situations in which tests are administered as part of a testing program and in situations apart from the counseling process, but the results are then used in counseling. In such cases it is obviously impossible to include clients in the selection of the tests. Here it becomes important for the counselor to communicate to clients and to determine whether the clients’ interpretations indicate their understanding and insight.

In the test selection process the counselor needs to communicate the general role of the tests, the general procedures used, and the particular information being sought. Testing goes along with the total counseling process during this interview and should not be its only focus. Generally the client does not decide which specific test is the best measure, because this is a technical decision that counselors make on the basis of their professional knowledge. Instead, the counselor and client agree on the types of tests that will be the most useful and will provide information that is valid for whatever actions or decisions are going to be made. In general, clients are not nearly as interested in the specific characteristics of the test as they are in the implications the results will have for them. Therefore, counselors should describe the types of tests in general terms, rather than overwhelming clients with lengthy, technical descriptions of the tests and the many aspects of psychological measurement that are related to the field.

In general, a client’s initial perceptions about the need for testing should not necessarily be taken at face value. For example, a request for a personality test should result in an effort to explore the meaning of the request rather than simple acceptance of it. Rather than simply being curious about the results of a personality test, the client may be having some significant problems that he or she is reluctant to reveal, such as anxiety or depression, and may be indirectly asking for help, using the request for testing as an avenue to get at the major problem.
Another important principle to be used in test selection is that other sources of data should also be explored. Counselors can first attempt to explore with clients previous experiences that may provide relevant information and self-descriptions regarding what they know about themselves. Their recall of previous experiences provides a great deal of information that may rule out the need for particular tests and can add much to what the tests that are administered reveal.

**Client Interpretation of Tests**

Several approaches to test interpretation emphasize or rely completely on counselor interpretation. In the interpretive technique, the counselor presents the test data in objective terms and interprets the data for the client. For example:

We have found the best indication of success in most college courses is how well you do in high school and how you rate on an academic ability test. You were in the upper 10 percent of your high school class and exceeded seven or eight out of ten college students on the academic ability test. Most people with scores like that learn complex things relatively easily and quickly. For example, 60 to 80 out of 100 students with scores like that get average grades or better in the three colleges to which you are considering applying.

Then there is the explanatory approach, in which the counselor interprets the results in a subjective, non-statistical personalized prediction:

As far as I can tell from this evidence of aptitude, your chances of getting into medical school are poor, but your possibilities in business seem to be much more promising. Here are some of the reasons for my conclusions: you have done very poor work in zoology and chemistry. Your patterns of interests on the interest inventory are not characteristic of successful physicians, suggesting that your interests are unlike those of most of the folks in that field. On the other hand, you do well in mathematics, have good general ability, and your interests are like those of people in several business fields. These facts seem to me to argue for your selection of several options within the business field to explore.

Whether the counselor tends to be objective or subjective, the client is still in the position of receiving the counselor’s interpretation of the results. The client interpretation approach, however, requires that the client play the role of test interpreter. This method can be employed with high school and college students and adults who come to counseling centers but is not meant for use with clients who are
emotionally disturbed. The counselor’s role in this approach is to prepare the client for the interpretation task and to give guidance and support during the process. The client’s role is to learn the information necessary for interpreting the test results, to make the interpretation, to explore the ramifications of this interpretation, and to follow through by making decisions, adjusting plans, or otherwise implementing a modified self-perception.

Under this interpretation style, the counselor begins by defining the construct being evaluated; for example, vocational interest or mathematical aptitude or a personality characteristic. This general definition naturally leads to a discussion of what the test at hand is measuring. It is at this point that the counselor ensures that no fears or stereotypes are going to distort later perception of the test results. The discussion then moves to the subject of error of measurement and perhaps a brief explanation of what the test is not measuring. The counselor’s judicious provision of information saves time and ensures that the client is receiving accurate information, that it is presented in a conversational style, and that there are frequent summaries. The counselor should also explore any comments the client makes. In this technique the counselor is counseling all the time and can shift out of the test interpretation role at any time and return to it later.

In the next phase, the counselor presents information regarding the manner in which the test results or profiles are presented. If relevant, there is discussion of the implications involved in making forced-choice comparisons. Percentile ranks are illustrated and norm groups carefully explained. The approach in this phase is active and Socratic. Again the counselor uses frequent summaries and single-question “quizzes” to ensure correct learning and verbally reinforces accurate client insights. The results are usually presented with a suggestion that the client study them for a while, then tell the counselor what they mean. At this point, the counselor’s role shifts to clarification and exploration of the interpretations. This procedure ensures that the interpretations, evaluations, or biases are the client’s. In this phase, by simple reflection or restatement, the counselor can help the client to clarify and elaborate on what the results mean for him or her. If the client appears to be faced with the problem of incorrect learning, then the counselor must repeat the introductory material accurately, as information that is incorrectly received is worse than no information at all. If the client interprets the results accurately but appears to be unhappy about the findings, the counselor can begin immediately to help the client work through the unhappiness.

The advantage of this approach is that it reinforces the client as a person who is capable of interpreting and understanding psychometric results. The chances of the client misinterpreting what the test actually
measured are greatly reduced if not eliminated. The interpretations are the client's insights. As a result, the client is more adequately prepared to understand and assimilate the results following this type of interpretation. The client has assumed the main responsibility for interpretation, decision making, and planning for implementation of decisions made.

Interpreting test results over more than one session is desirable, in line with the notion that distribution of practice improves the acquisition of knowledge and the memory of information. In the first session of interpreting Strong Interest Inventory, the counselor might ask the client to predict on which of the occupational themes he or she is likely to have scored the highest and lowest. Then the actual results would be discussed. In the next session the client would be asked to recount what he or she remembered from the previous session and integrate this information with the basic interest scale results. In the subsequent session the counselor would encourage the client to recount what was discussed in the previous two sessions then would introduce the occupational scales. By thus reconciling discrepancies between preexisting beliefs and actual scores, the counselor could guide the client to increased acceptance of the Strong profile and thus greater memory for the results (Hansen et al., 1994).

Counselors in some settings must work within more limited time parameters, for example, high school counselors usually do not have the opportunity to spend four or five sessions interpreting one instrument. They may, however, have contact with a student over a number of years in different contexts, such as course selection, career exploration, or college selection. The depth of processing and distribution of practice approaches can be addressed through methods unique to the school counseling situation. Parents could also be involved in the interest exploration process. The testing results could also be integrated into a junior- or senior-level class on career exploration.

Conclusions

Psychological tests are used by personnel managers to hire employees, by school psychologists to track pupils, by clinical psychologists to diagnose patients, by college admissions staff to admit students, and by forensic psychologists to determine sanity. In the counseling setting, however, psychological tests are used to help clients understand themselves. Counselors use tests primarily to assist individuals in developing their potential to the fullest and to their own satisfaction. In this setting test results are designed to be used by the clients themselves, rather than by others making decisions on the clients’ behalf. Thus, how adequately the clients themselves understand the
test results is more important than the counselor’s knowledge or understanding. With the prevalence of negative attitudes toward psychological tests, counselors may be reluctant to make adequate use of them in assisting clients, but they should remember that the use of tests in counseling differs from their use in other contexts. Test results in counseling constitute interventions that can facilitate change and can lead to greater awareness, knowledge, and self-understanding, which can result in clients’ making better and more effective decisions.

References


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Albert B. Hood is professor emeritus at the University of Iowa. He obtained his Ed.D. at Cornell University. Among his research interests are psychosocial development of college students and psychological assessment. Hood is the author of more than 100 publications including five books, among them are Key Resources on Student Services (Jossey-Bass) and Assessment in Counseling (American Counseling Association). He also serves as editor of the Journal of College Student Personnel. A Fellow of the APA, Hood is recipient of the Contribution to Knowledge Award (ACPA) and the Extended Research Award (ACA). He also was awarded a Fulbright Lectureship in the Soviet Union.
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