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AN EXAMINATION OF THE RELATIONSHIP BETWEEN PERSONALITY DIMENSIONS AND PREFERENCE FOR A DELIVERED OR INTERACTIVE TEST FEEDBACK STYLE

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AN EXAMINATION OF THE RELATIONSHIP BETWEEN PERSONALITY DIMENSIONS AND PREFERENCE FOR A DELIVERED OR INTERACTIVE TEST FEEDBACK STYLE

A Dissertation APPROVED FOR THE
DEPARTMENT OF EDUCATIONAL PSYCHOLOGY

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Abstract

This study examined client perceptions of a personality test feedback session. Participants (n=82) took a well-known normal personality test and had their results interpreted for them in either a delivered or interactive test feedback style. An interactive style of feedback involved significant client participation, while a delivered style of feedback involved minimal client participation. Based on the results of the personality test, participants were labeled as either introverted or extraverted. Results of the study revealed no differences between the delivered and interactive conditions in perception of counselor, perception of session impact, or overall satisfaction. Further, results revealed that participant personality style (introverted or extraverted) did not mediate preferences for test feedback style. Analyses revealed that extraverts rated their level of comfort with their level of involvement in the feedback session higher than did introverts. However, this difference in comfort level did not translate into differences in ratings of counselor, session impact, or overall satisfaction. Limitations of the study and directions for future research are discussed.

CHAPTER ONE

Introduction

Psychological assessment is a valuable tool for clinicians that is often used to supplement data and confirm or deny hypotheses regarding diagnosis, treatment, and recommendations. Meyer and Deitsch (1996) stated that psychological testing is useful because it provides data that cannot be obtained in interview data alone. Further, these authors reported that hypotheses made during a clinical interview could either be strengthened or called into question once data from psychological tests are obtained. Meyer et al. (2001) suggested seven primary purposes of assessment: (a) to describe current functioning, including cognitive abilities, severity of disturbance, and capacity for independent living; (b) confirm, refute, or modify the impressions formed by clinicians through their less structured interactions with patients; (c) identify therapeutic needs, highlight issues likely to emerge in treatment, recommend forms of intervention, and offer guidance about likely outcomes; (d) aid in the differential diagnosis of emotional, behavioral, and cognitive disorders; (e) monitor treatment over time to evaluate the success of interventions or to identify new issues that may require attention as original concerns are resolved; (f) manage risk, including minimization of potential legal liabilities and identification of untoward treatment reactions; and (g) provide skilled, empathic assessment feedback as a therapeutic intervention in itself (p. 129).

The idea that assessment feedback alone is therapeutic to clients has wide support in the literature. In agreement with Meyer et al. (2001), Goodyear (1990) stated that test interpretation is a "microintervention" (p. 240). Kubiszyn et al. (2000) reported that "psychological assessment is a brief treatment in itself" and can have a positive impact on

clients (p. 125). Further, Butcher (1990) stated that providing feedback to clients on their MMPI-2 results provides "valuable entry into the treatment process" (p. 148). Thus, these authors asserted that there is value in the testing procedures alone.

Finn and Tonsager (1997) offered two paradigms of psychological assessment. The *information-gathering* approach is used to collect data and plan treatment, while the *therapeutic model* is used to produce positive changes in clients. Finn and Tonsager argued that these paradigms should not be mutually exclusive; rather, they should complement each other. Further, the authors stated that psychological assessment could be therapeutic. They suggested that feedback is therapeutic when conducted in a collaborative fashion because it addresses three basic human motives. These motives include self-verification (confirmation of how a client views her/himself), self-enhancement (being praised by others and thinking well of ourselves), and self-efficacy/self-discovery (need for exploration, mastery, and control). Finn and Tonsager suggested that these motives can be successfully addressed when providing psychological assessment feedback and thus clients view the experience as positive and therapeutic.

Despite the widespread support for the value of psychological assessment feedback to clients, there is a dissenting opinion in the literature. Tinsley and Chu (1999) reported, "there is no credible body of evidence to document that a test or interest inventory interpretation by a trained counselor is helpful" (p. 271). These authors made this conclusion after reviewing the literature in this area since 1950. Tinsley and Chu stated that despite the widely held belief that test interpretation is helpful, the empirical evidence to support this assertion is lacking.

Despite this disagreement about the helpfulness of test interpretation, researchers agree that test interpretation feedback is a neglected area of study. Berg (1985) stated that little attention has been paid to the role of feedback in the psychological assessment process. Berg reported that this is because the focus tends to be on gathering and analyzing psychological assessment data, and feedback is often not seen as an integral part of the assessment process.

In agreement with Berg (1985), Pope (1992) stated, "feedback may be the most neglected aspect of assessment" (p. 268). Pope stated that clinicians often view feedback as an obligatory task and thus they do not view it as a therapeutic, dynamic, and interactive process. Butcher (1990) stated that despite clinician reservations about providing feedback, it is the duty of clinicians to provide well-timed feedback to clients.

This duty is outlined in the American Psychological Association (APA) Code of Ethics (1992). The Ethics Code demands that clinicians use psychological measurements appropriately. This suggests that clinicians must provide a rationale for the testing procedures and believe that the results of testing will be valuable and not detrimental to the client. Further, it is the ethical obligation of clinicians to provide timely feedback regarding the results of testing.

Despite the apparent importance of assessment feedback, there have been few empirical studies examining the process and outcome of test interpretation feedback. In a review article published in 1999, Tinsley and Chu identified only 65 articles that directly investigated test interpretation outcomes. The vast majority of these articles (all but 10) were published prior to 1980. Furthermore, Tinsley and Chu reported that most of the 65

studies were not done competently. Therefore, it is clear that there is a dearth of research in this area, especially in the last two decades.

Although there has been a historical lack of attention to the feedback process, there has been a resurgence of interest in the counseling psychology literature on delivering feedback to clients after they have taken a psychological test or a psychological testing battery. Interest in this topic renewed after a study by Finn and Tonsager in 1992. These authors created an experimental condition, where clients received test interpretation feedback on their MMPI-2. Clients in the control condition received only counselor attention. Results indicated that participants in the experimental condition demonstrated higher self-esteem and greater hopefulness immediately following the feedback session, and also at a two-week follow-up. Furthermore, these participants experienced a significant decrease in their overall distress level. Therefore, the results indicated that feedback sessions increased client self-esteem and hopefulness and decreased overall distress.

Finn and Tonsager's (1992) study revealed that feedback sessions can serve as a therapeutic tool to clients. Further, this study reported that the researchers could not identify specific client variables that were related to the positive changes experienced by those in the experimental condition. Thus, more research needs to be completed to address this gap in the research.

Finn and Tonsager's (1992) study was replicated in a study by Newman and Greenway (1997). Overall, Newman and Greenway's findings replicated those of Finn and Tonsager; that is, feedback sessions were found to be effective therapeutic interventions.

A salient question in the literature at this time is how the process of the feedback session affects the client's perception of the counselor and the depth and impact of the session. Hanson and his colleagues (Hanson, Claiborn, & Kerr, 1997; Hanson, 1998) are leading the field in this area. Hanson and his colleagues examined how two different test interpretation styles (delivered and interactive) impacted clients who received personality and career inventory results. In the study, Hanson et al. (1997) manipulated the type of feedback style received. The *interactive* style of feedback incorporates several elements. First, the counselor told the client that she/he would be involved in the interpretation of the inventory. Second, the client was asked to note particularly high or low scores on her/his inventory. The counselor then briefly described the construct and asked the client to give behavioral examples of that construct. At the end of the session, the counselor asked the client to summarize her/his test interpretation and asked what conclusions she/he could draw about her/himself.

The *delivered* style differed from the interactive style in many ways. First, the counselor told the client that the test results would be interpreted for her/him. Second, the counselor noted high scores on the inventory and described what those high scores meant. The counselor then gave behavioral descriptions of that construct. At the end of the session, the counselor summarized the test interpretation for the client.

Results of the Hanson et al. (1997) study showed that clients in the two conditions had similar number of thoughts (from a thought-listing exercise) and did not differ in the favorability of their thoughts. However, clients in the interactive condition rated their session higher on the depth dimension than did the clients in the delivered condition. Furthermore, clients in the interactive condition rated the counselor as more of an expert,

more trustworthy, and more attractive than did clients in the delivered condition. However, results of the Hanson (1998) study were contrary to results from Hanson et al. Specifically, measures of session depth and perception of counselor did not vary according to the style of feedback session received. Therefore, more research needs to be conducted in this area to address this discrepancy.

It is important to note that Hanson et al. (1997) did not consider variables such as the participants' culture, acculturation, or personality when measuring client satisfaction with the feedback style received. Thus, there is a strong possibility that several subject variables could impact client preferences for a delivered or interactive feedback style.

Only one study to date has investigated how subject variables mediated the feedback process and preference for a particular test interpretation style. In her dissertation, Guzzard (2000) examined how clients' level of affiliation impacts preference for a delivered or interactive test interpretation style. She found that level of affiliation did not mediate participants' preferences for a test interpretation feedback style. However, Guzzard suggested that other subject variables need to be investigated in order to determine their impact. Subject variables (e.g. personality, sex, culture) could have a significant impact upon preferences for a particular test interpretation style. Thus, the current study will examine how personality variables (specifically introversion/extraversion) mediate preferences for a particular testing feedback style.

Statement of the Problem

The purpose of this study was to determine how personality variables (specifically introversion/extraversion) impacted participant ratings of either a delivered or interactive psychological assessment feedback style. Participants rated their perceptions of the

counselor, perceptions of the feedback session, and overall satisfaction with the feedback session. This study extends the work of Hanson and colleagues (Hanson et al., 1997; Hanson, 1998) and Guzzard (2000) by determining what specific factors (i.e. personality variables) may influence participants' satisfaction with a particular feedback style.

As noted above, the literature has examined client satisfaction with the delivered and interactive styles of feedback, but has not thoroughly examined how subject variables influence the satisfaction ratings. This study should produce valuable information for practitioners. Specifically, this study will determine how personality variables impact preferences for specific types of feedback styles. With this knowledge, practitioners can provide tailored assessment feedback to each individual client.

CHAPTER TWO

Review of the Literature

Despite the widespread use of assessment tools, there has been surprisingly little research on the process of test interpretation. Many of the articles on this topic have been theoretical in nature (e.g. Berg, 1985; Butcher, 1990; Finn & Tonsager, 1997; Meyer et al., 2001, Tinsley & Bradley, 1986) with little empirical evidence suggesting the best way to provide test interpretation feedback. Because test interpretation feedback can be therapeutic in itself, it is important to study the processes by which clients experience change and how test interpretation feedback is associated with client outcomes.

Several authors have asserted that test interpretation feedback should be conducted in a collaborative fashion (e.g. Berg, 1985; Butcher, 1990; Finn & Tonsager, 1997; Meyer et al., 2001, Tinsley & Bradley, 1986). These authors have suggested the incorporation of the client in the interpretation process, but few studies have investigated this phenomenon empirically. Following is a chronological review of the few studies that have explored the process of test interpretation.

Research Findings

The first empirical study on the concept of test interpretation was in 1950. Dressel and Matteson (1950) studied how client participation in the test interpretation process affected self-understanding, vocational choice, and satisfaction with the testing experience. Clients were 40 college freshmen who were given a vocational battery of tests. The authors developed a list of principles for "participation" in order to operationalize this variable. Criteria included encouraging clients to voice their own feelings and explanations, allowing clients adequate time to react to their testing profile,

and encouraging clients to relate their own experience to the test results. The authors stated that the "import of these principles is that the client is to be given the opportunity to ask questions, venture his own hunches and, in short, to develop the counseling session in the direction of his own interests and concerns" (p. 697). With minor differences, Dressel and Matteson's operationalization of client participation is similar to the interactive style of test interpretation posited by Hanson and his colleagues (Hanson et al., 1997; Hanson, 1998).

Dressel and Matteson (1950) designed a rating scale for judges to determine the level of client participation in each feedback session. Clients in the study completed questionnaires related to self-understanding, vocational security, and satisfaction with the testing process. These questionnaires were re-administered two months later. Results revealed that clients who participated more actively obtained the most gains on the self-understanding instrument. Further, security in vocational choice increased most by those clients who participated most. However, the authors found no relationship between client participation and client satisfaction.

There are some significant methodological weaknesses to Dressel and Matteson's (1950) study. First, by their own admit, the authors were concerned about the "crudity of some of the instruments used" (p. 704). Further, the authors did not indicate how many judges were used or what percent agreement the judges obtained when rating client participation in the feedback sessions. Last, the participants were 40 college men, which limits the generalizability of the findings to young college men. Despite these weaknesses, this study was the first to empirically validate that client participation is an important variable in the test interpretation process.

Rogers (1954) further examined how client participation affects the test interpretation process. Participants were 94 college freshmen who took a vocational test battery. Rogers provided test feedback in either a "test-centered" or "self-evaluative" method. Rogers' "test-centered" method closely resembles Hanson et al.'s (1997) "delivered" style, while Rogers' "self-evaluative" method closely resembles Hanson et al.'s "interactive" style. Specifically, the test-centered method involved little effort from the counselor to elicit responses from the subject. Further, the clients were not asked to add personal examples to the test data. In contrast, the self-evaluative method involved contributions from the client. The client was asked to provide personal examples to exemplify test data and was asked to summarize his/her test data. Both pre-interview and post-interview self-understanding ratings were obtained from the clients and the counselor.

Rogers (1954) hypothesized that the self-evaluative method would be more effective than the test-centered method (i.e. the method in which client participation is greater would be more effective). Results revealed no significant differences in self-understanding based on the method of interpretation received. Clients improved in overall self-understanding, but did so regardless of test interpretation method. These findings are problematic for several reasons. First, change in self-understanding was computed by comparing clients' ratings to that of the counselor. A high discrepancy between client ratings and counselor ratings led to a conclusion of client's lack of self-understanding. According to Rogers, "a high score represents extensive disagreement between student and counselor, and, assuming the validity of the counselor's ratings, lack

of self-understanding on the part of the student" (p. 226). This appears to mean that the counselor's ratings were more "true" of the client than the client's own ratings.

Furthermore, Rogers (1954) reported that only some clients in the self-evaluative condition actively participated in their session, while some clients in the test-centered method participated actively. Thus, the intended manipulation of the variable under consideration may not have been successful.

Holmes (1964) investigated the effects of four methods of test interpretation on attitudes toward the counselor and value of the testing procedures. Subjects were 154 college freshmen who were administered a battery of academic tests. Methods A, B, C, and D differed in the degree of counselor and client interaction and participation. In Method A, the counselor took the dominative role. The counselor offered suggestions, answered questions, and provided a reaction to the client's performance. In Method B, the counselor elicited client participation in the interpretation process. The counselor did not provide a reaction to the client's performance, but instead focused on eliciting reactions from the client on his/her test scores.

In Method C, the counselor was again dominative but did not react to the client's performance. Instead, the counselor encouraged the client to report his/her feelings about his/her test scores. In method D, a brief summary of the test results was mailed to the clients. Thus, there was no counselor/client interaction. Random audiotaped sessions were reviewed and it was concluded that the four counselors used in the study adhered to the protocol for each method. Clients in the study completed two instruments (which were created for use in the study). One instrument measured attitudes toward the counselor and assessed the value of receiving the test interpretation information. This

instrument was completed following the feedback session and again one week later. The second instrument asked clients to recall their test scores and was completed one week after the feedback session.

Results revealed no significant differences for attitude toward the counselor or value of the testing information between Methods A, B, and C. However, results showed that Method D (test interpretation received by mail) was less effective overall. With regard to test recall, Method B (active client participation) was associated with the best recall of test scores (Method D was excluded in this analysis because the author reported that clients could have copied their test data to the recall sheet). From her study, Holmes (1964) concluded, "counseling effect seems to last longer if it is student dominative" (p. 57).

Similar to Dressel and Matteson (1950) and Rogers (1954), the study by Holmes (1964) is plagued with some methodological problems. First, Holmes created the instruments used in her study, but did not report any validity or reliability information about the instruments. Thus, it is impossible to determine if the results were based on reliable and valid measurement. Furthermore, Holmes reported that two of the four counselors used in the study received negative ratings across clients. Thus, Holmes concluded, "the counselor himself was a major influence in the formulation of attitudes toward the counselor" (p. 57). If true, the formulation of attitudes toward the counselor may have resulted from the counselor's personality or style rather than the test interpretation method employed.

Lister and Ohlsen (1965) examined the test interpretation process in a non-college sample. In their study, the authors investigated the effects of orienting students to the

testing process on self-understanding. Subjects were 787 students in grades 5, 7, 9, and 11. The authors hypothesized that a "pre-testing meeting in which students were told about testing and how they could use test results would result in: (a) greater motivation to have tests interpreted, and (b) greater self-understanding following test interpretation" (p. 805). Participants completed a battery of standardized academic tests. The experimental group received the orientation presentation, while the control group did not.

Results revealed that receiving the orientation presentation was associated with higher motivation for learning test results in grades 7 and 9, but not in grades 5 and 11. Further, there were no differences in self-understanding between the experimental and control groups. However, Lister and Ohlsen (1965) concluded, "test interpretation produced significant increases in self-understanding for all grades and all types of tests" (p. 808). Thus, although the orientation presentation manipulation was not significant, the overall sample did improve their self-understanding after the test interpretation.

Lister and Ohlsen's (1965) study did not manipulate client participation in the test interpretation process; therefore, no conclusions can be drawn about this variable. The conclusions that can be drawn from Lister and Ohlsen's study are (1) participating in a test interpretation process leads to greater self-understanding and (2) orienting clients to the benefits and uses of testing beforehand does not appear to have an impact on motivation or self-understanding.

Likewise, Folds and Gazda (1966) studied the test interpretation process but did not manipulate level of client participation in the feedback process. Instead, Folds and Gazda compared the test interpretation method used (individual, small group, and written) with a control group on accuracy of test score recall, change in self-concept, and

evaluation of the test interpretation process. Subjects were female college students, but the number of subjects was not reported. Subjects took a battery of academic tests and received feedback individually, in a group of 6 to 10 students, or through a written report.

There were no significant differences on self-concept change among the experimental and control groups. Recall of test data was also equal among the groups. However, those receiving individual test interpretations rated them more comprehensive than those receiving group or written test interpretations. Greater satisfaction was also associated with individual interpretations. Thus, although the memory for test data was equal among the groups, participants voiced greater satisfaction when the interpretation was completed individually.

Results from the Folds and Gazda (1966) study are questionable because the authors did not report any information regarding the subjects. Specifically, the number of subjects who participated in the study was not reported. Further, the authors did not discuss the level of client participation in the experimental groups. Thus, the subjects in the group interpretation method may have participated less, while the subjects in the individual interpretation may have participated more. This, and not simply the method used, could account for the results of the study.

Rubinstein (1978) also compared individual and group test interpretations. Subjects were 83 college students who took the Strong-Campbell Interest Inventory (SCII). Rubinstein compared three experimental groups with two control groups. The experimental groups included (1) traditional individual interpretation, (2) integrative individual interpretation, and (3) traditional group interpretation. In groups 1 and 3, the counselors presented each client with his/her SCII profile and responded to questions and

concerns regarding the test results. However, group 1 was conducted individually, while group 3 was conducted in groups of 3 or 4 individuals. In group 2, the clients were not shown their SCII profile until after the interpretation session. Two control groups were employed. Clients in one control group received a copy of their test results, but did not participate in an interpretation session. Clients in the other control group did not receive test results or an interpretation until after the post-measures were completed. Rubinstein examined the effects of test interpretation procedures on vocational self-knowledge, vocational choice certainty, ratings of counselor performance, and ratings of the counseling experience.

No differences on any of the dependent measures were found between the traditional individual and traditional group approaches. Further, the integrative method was not more effective when looking at clients' recall of test results or degree of vocational choice certainty. However, subjects in the integrative individual condition rated their counseling experience most favorably and their counselors as more attractive than subjects in the traditional individual and traditional group approaches.

Again, methodological concerns abound in the study by Rubinstein (1978). First, the author only described the experimental conditions briefly and thus they are not fully explained. For example, it is unknown how the integrative individual condition varied from the traditional individual condition, except for the use of the SCII profile in the traditional individual approach. Additionally, no information from the two control groups was presented.

Empirical studies on test interpretation waned in the 1980's. Interest in this topic renewed after a study by Finn and Tonsager in 1992. In this study, the researchers

randomly assigned 32 clients at a college counseling center to an experimental group. The attention-only group contained 29 participants. Clients for both groups were randomly selected off of a waiting list at a college counseling center. The experimental group completed the MMPI-2 and received verbal MMPI-2 feedback, whereas control clients completed only the outcome measures and received examiner attention. Participants in the both groups met with or were contacted by the researcher three times.

The dependent measures in this study included a self-esteem questionnaire, a symptom checklist, a self-consciousness inventory, and a questionnaire about the feedback session, developed specifically for the study. These measures were completed at each of the three contacts. Results indicated that participants in the experimental condition demonstrated higher self-esteem and greater hopefulness immediately following the feedback session and also at the two-week follow-up. Furthermore, these participants experienced a significant decrease in their overall distress level. Therefore, the results indicated that feedback sessions increased client self-esteem and hopefulness and decreased overall distress.

Finn and Tonsager's (1992) study was replicated in a study by Newman and Greenway (1997). In this study, Newman and Greenway followed the procedures of Finn and Tonsager, with one exception. In Newman and Greenway's study, clients in the control group received feedback of their MMPI-2 results one week after completing the final outcome measures. Participants in the experimental group received their feedback within two weeks of taking the MMPI-2 and completed the outcome measures following the feedback session. Results were similar to the Finn and Tonsager study. Specifically, clients in the experimental condition reported decreased levels of overall distress when

compared to clients in the control condition. Furthermore, clients in the experimental group reported higher self-esteem than those in the control group. Overall, Newman and Greenway's findings replicated those of Finn and Tonsager; that is, feedback sessions were effective therapeutic interventions.

Two studies by Hanson and colleagues (Hanson, et al., 1997; Hanson, 1998) addressed two styles of assessment feedback. In these studies, Hanson and his colleagues examined how two different test interpretation styles (delivered and interactive) impacted clients who received personality and career inventory results (Hanson et al., 1997) or only a personality test (Hanson, 1998). In both studies, Hanson manipulated the type of feedback style received. As previously described, the interactive style of feedback requires active participation on the part of the client, while delivered feedback elicits little participation from the client.

Participants in the Hanson et al. (1997) study were 26 university honors students who were in ongoing career counseling. These students took a vocational test and a personality test, which was interpreted either in a delivered or interactive style. Dependent measures were session impact, counselor influence, number of thoughts listed in a thought-listing exercise, and the favorability of those thoughts. Results of the Hanson et al. study showed that clients in the two conditions had similar number of thoughts and did not differ in the favorability of their thoughts. However, clients in the interactive condition reported that their session had more depth than those in the delivered condition. Furthermore, clients in the interactive condition rated the counselor as more of an expert, more trustworthy, and more attractive than did clients in the delivered condition. Therefore, the researchers concluded that the interactive style of

feedback was more influential than the delivered style of feedback. The authors acknowledged that further research is needed in order to assess the accuracy of this conclusion.

Results of the Hanson (1998) study, however, reported differing results. This study used 47 college student volunteers who took a personality test that was interpreted either in a delivered or interactive style. Dependent measures were session impact, counselor influence, perceived accuracy of interpretation, number of thoughts listed in a thought-listing exercise, and the favorability of those thoughts. Results revealed that the delivered condition elicited significantly more thoughts than did the interactive condition. This result was in contrast to Hanson's hypothesis and findings from Hanson et al. (1997). Furthermore, Hanson (1998) found that interactive and delivered styles did not differ in regard to session depth, perceived value of the session, or perceptions of the counselor. This finding was also in contrast to results from Hanson et al. Clearly, additional research needs to be conducted to address this discrepancy.

Research Summary

From this review, it is evident that there are mixed results regarding the effects of active participation on the perception of the test interpretation process. Specifically, some studies found important differences when clients participated actively (e.g. Dressel & Matteson, 1950; Hanson et al., 1997; Rubinstein, 1978), while others found few or no differences based on client participation (e.g. Hanson, 1998; Holmes, 1964; Rogers, 1954). In some instances, clients rated the counselor more favorably in interactive test interpretation sessions (e.g. Hanson et al., 1997; Rubinstein, 1978) but not in others (e.g. Hanson, 1998; Holmes, 1964). Increase in self-understanding or vocational choice when

clients actively participated occurred in some studies (e.g. Dressel & Matteson, 1950), but not in others (e.g. Rogers, 1954; Rubinstein, 1978). Finally, one study (Holmes, 1964) found that active participation in the test interpretation session led to greater recall of test data at a later point in time.

According to reviews by Goodyear (1990) and Tinsley and Chu (1999), few solid conclusions can be drawn from the test interpretation literature. Conclusions that can be drawn include (1) more research on test interpretation is needed, (2) in general, clients who receive test interpretation – regardless of format or modality – do experience greater gains than those in control conditions, and (3) no modality is superior to another, but clients prefer receiving interpretations individually. Tinsley and Chu, because of the few and poorly conducted studies in this area, concluded that there is "no demonstrated empirical relation between degree of client participation and the effectiveness of test or inventory interpretation" (p. 266). These authors further stated that intuitively, there should be a difference in effectiveness based on client participation. However, the data is sparse and therefore no firm conclusions can be drawn at this time. Tinsley and Chu believed that, with further investigation, a positive relationship may be found between client participation and test interpretation effectiveness. In fact, they stated in their review article, "This is an extremely important issue that deserves the attention of the discipline, but virtually no research has been done on this issue in the last 30 years" (p. 266).

Factors Affecting the Test Interpretation Process

Previous research has identified some important factors that may affect the test interpretation process. Three of these factors -- the Barnum effect, favorability, and personality variables -- will now be briefly reviewed.

Barnum effect. There is extensive research on the accuracy of test feedback, particularly feedback that is accepted as accurate whether it is true or not. This phenomenon is called the "Barnum effect," penned by Meehl (1956). According to Furnham and Schofield (1987), Meehl borrowed the concept from his colleague Donald Paterson. The Barnum effect gets its name from P.T. Barnum's famous expression "There's a sucker born every minute." The Barnum effect is described as "a phenomenon whereby subjects accept personality feedback as true, whether it is universally valid or trivial, because it is supposedly derived from personality assessment procedures" (Furnham and Schofield, p. 162).

The Barnum effect has been extensively examined and consistently supported (e.g. Carrier, 1963; Furnham & Schofield, 1987; Ruzzene & Noller, 1986; Snyder & Larson, 1972, Snyder & Shenkel, 1976). In the majority of Barnum effect studies, participants are given bogus feedback that is typically vague in nature and thus could be universally true of most people (e.g. "You have a tendency to be critical of yourself"). Even when bogus feedback is given to participants in combination with accurate feedback, participants tend to accept the bogus feedback as true.

The Barnum effect offers several questions for clinicians and researchers. According to Furnham and Schofield (1987), if clients endorse both accurate and inaccurate feedback as true, to what extent can a clinician or researcher rely on reactions

to feedback as a source of test validity? Furthermore, what factors affect the acceptance of bogus feedback?

Favorability. It appears that one factor that affects the acceptance of bogus feedback is favorability. Favorability can be defined as the extent to which positive implications of the testing are discussed with the client in relation to negative implications. There is a tendency to accept positive feedback with more frequency than negative feedback (Furnham & Schofield, 1987).

Ruzzene and Noller (1986) studied undergraduate students in Australia. They manipulated the accuracy and favorability of the feedback provided on a personality instrument and asked participants to rate the accuracy of the feedback they received. The authors also determined the level of desire (i.e. high, average, low) for receiving test feedback. For participants who were low or average in their desire for feedback, they rated positive feedback as more accurate than negative feedback. For participants who were high in their desire for feedback, their preference for positive over negative information occurred only for inaccurate feedback. Thus, overall, this study confirmed the findings of the Barnum effect literature. Specifically, individuals tend to endorse positive attributes as more accurate than negative attributes, regardless of their true accuracy.

Hanson (1998) also manipulated the favorability of test feedback results. Specifically, some clients received positive only feedback, while others received mixed feedback (i.e. positive and negative). Interestingly, clients in Hanson's study rated mixed test results as more helpful than positive only test results. Thus, Hanson concluded that

providing clients both positive and negative feedback is more helpful than providing only positive feedback.

Personality variables. Empirical findings related to the impact of personality variables on the test interpretation process are insufficient. Most of the literature that has examined personality variables pertains to studies of the Barnum effect. Having an external locus of control was related to greater acceptance of bogus feedback (Snyder & Larson, 1972; Snyder & Shenkel, 1976). Greater acceptance of bogus feedback also related to higher scores on the achievement, deference, introception, and abasement scales of the Edwards Personal Preference Inventory (Carrier, 1963). Mosher (1965) discovered that participants who scored high on a measure of approval-seeking behavior readily accepted favorable bogus interpretations, but were less likely to accept unfavorable interpretations. Additionally, Snyder and Clair (1977) found that both trait and situational insecurity led to greater acceptance of bogus interpretations. Finally, Orpen and Jamotte (1975) studied the personality variables of authoritarianism, need for approval, and locus of control. They found that persons more accepting of bogus feedback tended to be authoritarian, those with a high need for approval, and those with an external locus of control.

In a non-Barnum effect study, Kivlighan and Shapiro (1987) examined the effect of participants' Holland codes on the likelihood to benefit from a self-help career counseling intervention. The researchers discovered that those individuals with a Conventional, Realistic, or Investigative codetype benefited most from the career counseling intervention. Goodyear (1990) stated that personality variables are pertinent to the test interpretation style and process. Specifically, Goodyear stated, "The context

and process of test interpretation together constitute a unique environment" (p. 244). Goodyear further stated that "test-centered" or delivered approaches are likely related to Investigative or Conventional types, and clients who are Social, Enterprising, or Artistic may find the test-centered interpretation uncomfortable.

Only one study to date has examined the relationship between a personality variable and style of test interpretation. In her dissertation, Guzzard (2000) examined how level of affiliation, as measured by the Personality Research Form (PRF), mediates preference for a delivered or interactive feedback style. Participants were 58 undergraduate students who took the PRF and had their results interpreted for them in either a delivered or interactive style. Following their test interpretation, participants filled out instruments related to session depth and perception of the counselor. Results revealed no main effect for level of affiliation on the dependent measures. The interactive feedback style elicited a higher level of participant involvement, higher degree of session depth, and higher ratings of counselor attractiveness, as noted by external observers, but not by participants themselves.

In attempting to explain the non-significance of the affiliation variable in her study, Guzzard (2000) offered this explanation: "...it may be that level of affiliation was not a useful dimension to use, particularly with this sample. Perhaps a more useful variable in the future might be one of motivation for change or a more direct measure of introversion and extraversion" (p. 48).

Guzzard (2000) hypothesized that level of affiliation may be an important personality factor in the test interpretation process. Although her results did not support this hypothesis, she suggested that introversion/extraversion might be an important factor

in clients' level of involvement in the feedback process. This makes intuitive sense based on the construct of introversion and extraversion. Specifically, according to the Myers-Briggs Type Indicator Manual (Myers, McCaulley, Quenk, & Hammer, 1998), extraverts are defined as persons who relate more easily to people and things outside, while introverts are described as relating easier to ideas and thoughts in one's mind. In other words, according to Myers (1995), "when circumstances permit, the introvert concentrates perception and judgment upon ideas, while the extravert likes to focus them on the outside environment" (p. 7). Thus, extraverts may be more comfortable in a test interpretation session in which they can relate to and interact with the interpreter. However, introverts may prefer a test interpretation session in which collaboration with the interpreter is minimized and therefore allows for internal reflection of the presented ideas.

Moreover, extraversion is part of the five-factor model of personality and thus represents a basic underlying dimension in human personality. The NEO PI-R (Costa and McCrae, 1992), which embodies the five-factor model, describes extraverts as "sociable," "liking people," and "assertive, active, and talkative." Introverts are described as the "absence of extraversion;" that is, "reserved," "even-paced" and "prefer to be alone," (p. 15). Because extraversion is a basic dimension in human personality, it is worthwhile to study how this dimension might mediate preferences for test interpretation feedback style.

Although no study to date has examined how the dimension of introversion/extraversion impacts preference for a specific style of feedback, it seems plausible that this factor would be important in preferences for a test feedback style.

Specifically, an extraverted client would be more likely to prefer an interpretation style that allows him/her to relate to another person (i.e. interactive style). However, an introverted client would be more likely to prefer an interpretation style that allows him/her to think about the ideas presented and minimizes interaction with the counselor (i.e. delivered style).

The purpose of this study was two-fold. First, the literature on the impact of active client involvement in the feedback process is mixed. The results of this study will hopefully clarify these mixed results. Second, this study examined how personality variables (specifically introversion/extraversion) impacted preference for a delivered or interactive feedback style.

The research questions for the present study were as follows:

1. Will participants' ratings of session impact differ by feedback style received (delivered or interactive)?
2. Will participants rate one feedback style as more satisfactory?
3. Will participants' ratings of the counselor differ based on the style of test interpretation used?
4. Will participants' scores on the personality inventory interact with interpretation style in affecting participants' perceptions of session impact?
5. Will participants' scores on the personality inventory interact with interpretation style in affecting participant satisfaction?
6. Will participants' scores on the personality inventory interact with interpretation style in affecting participants' perceptions of the counselor?
7. Will participants correctly identify which feedback style they received?

CHAPTER THREE

Method

Participants

Participants were 82 people (37 men and 45 women) recruited at two large public universities. Forty-three participants were recruited from a southwestern university and 39 were recruited from a midwestern university. Participants were recruited through advertisements in a school newspaper and announcements to psychology and career planning classes. The mean age of the sample was 22.18 (SD = 5.83) with a range of 18 to 46. The sample consisted of 8.5% African-American participants, 11% Asian-American, 1.2% bi-racial, 70.7% Euro-American, 2.4% Hispanic, 2.4% Middle Eastern, and 3.7% Native American. All but 3 participants received course credit for participating in the study. Of the sample, 28% reported that they had previously completed personality testing and 40.2% reported previous experience in counseling.

Counselors

Four counselors (two at each university) who were in graduate psychology programs served as the counselors in this study. Each counselor had completed basic coursework in counseling procedures and psychological measurement and had completed at least two semesters of practicum. All four counselors were female. Two counselors were Euro-American and two counselors were Asian-American. The counselors ranged in age from 24 to 32 years. All four counselors were in a doctoral program; two were in a clinical psychology program and two were in a counseling psychology program. The primary investigator provided a 2.5-hour training session to the counselors on the NEO PI-R and the delivered and interactive feedback styles. Counselors in this study were

blind to the specific research questions being addressed. Counselor 1 conducted 23 feedback sessions, Counselor 2 conducted 20 feedback sessions, Counselor 3 conducted 16 feedback sessions, and Counselor 4 conducted 23 feedback sessions (see Table 1).

Test Interpretation Protocols

The protocols used in this study were adapted from Hanson (1998) and Guzzard (2000; see Appendix A). Two protocols were developed. In the delivered protocol, the counselors provided test interpretation feedback to the client with little involvement from the client. In the interactive protocol, the counselors provided test interpretation feedback in a collaborative fashion with the client. Protocols were identical, with the exception of the interpretation style used.

Raters

Two independent raters reviewed audiotapes of the feedback sessions to determine if the manipulation of client involvement in the feedback sessions was achieved. Raters completed the Rater's Questionnaire (see Appendix F) for each audiotape reviewed. In total, each rater reviewed 16 audiotapes. Four audiotapes (2 of the delivered style and 2 of the interactive style) were randomly selected from each counselor for review. Several steps were involved in the audiotape selection process. First, audiotapes were divided by counselor (to obtain four groups). Because practice and repetition may have influenced the counselors' delivery of the protocols, each of these four groups was then divided in half (feedback sessions completed earlier vs. feedback sessions completed later in the study). Finally, tapes were divided into style portrayed (i.e. delivered or interactive). This sorting process resulted in 16 groups of tapes. Slips of paper with client identification numbers were then created for each tape in the 16

groups. One slip from each group was randomly drawn and the raters reviewed this tape. If the first slip drawn from each group represented a participant who did not permit audio recording, this slip was dismissed and a second slip was drawn from the group. This process resulted in the review of one early delivered style, one late delivered style, one early interactive style, and one late interactive style for each counselor.

The two raters in the study were both Euro-American females. One rater was a predoctoral psychology intern and one was a second-year clinical psychology doctoral student. Raters were paid $5.00 per audiotape reviewed. Raters in this study were blind to the specific research questions being addressed.

Instruments

Four instruments were used in this study to measure the variables under examination. One measured participant personality and the three dependent measures assessed participants' reactions to their feedback session (session evaluation, perception of counselor, and satisfaction ratings). The participants also completed a demographic questionnaire.

NEO PI-R. The NEO PI-R (Costa and McCrae, 1992) is a widely used personality instrument. It is a 240-item measure of personality traits encompassed by the 5-factor model of personality. The five factors measured are neuroticism, extraversion, openness to experience, agreeableness, and conscientiousness. Respondents use a 5-point Likert scale ranging from 0 (strongly disagree) to 4 (strongly agree). Administration of the NEO PI-R takes approximately 35-45 minutes. Internal consistency coefficients for the five domains of the NEO PI-R measured in a large sample of working adults ranged

from .86 to .92. Test-retest reliability coefficients over a 3- to 6-year period ranged from .63 to .83.

Counselor Rating Form – Short (CRF-S). The CRF–S (Corrigan & Schmidt, 1983) is a brief, 12-adjective instrument (see Appendix B) on which respondents rate their perceptions of the counselor by using a 7-point scale with anchors of 1 (not very) and 7 (very). Summing the items yields three separate four-item subscale scores: trustworthiness, expertness, and attractiveness. Subscale scores can range from 4 to 28, with higher scores indicating a greater degree of the dimension. Corrigan and Schmidt reported split-half reliabilities across student and client populations of .90 for expertness, .91 for attractiveness, and .87 for trustworthiness. Permission from the author was obtained to use the CRF-S in this study.

Session Evaluation Questionnaire (SEQ). The SEQ (Stiles, 1980) consists of 24 bipolar items that measure clients' reactions to counseling sessions (see Appendix C). Items are divided into three sections (session depth, smoothness, and postsession mood). Stiles defined the depth dimension as "deep, valuable, full, special, and good" and the smoothness dimension as "smooth, easy, pleasant, and safe" (p. 181). The postsession mood dimension is defined as "positive feelings" and includes both positivity and arousal. Subscale scores are reported on a 7-point scale. Higher scores indicate a greater degree of the dimension. Stiles and Snow (1984) reported internal consistency reliability coefficients as .87 for depth, .93 for smoothness, .89 for positivity, and .78 for arousal. Permission from the author was obtained to use the SEQ in this study.

Satisfaction Questionnaire (SQ). The primary researcher developed the SQ for the purposes of this study (see Appendix D). Part A asks eight questions regarding

overall satisfaction, level of comfort, level of involvement, degree of helpfulness, and open-ended questions regarding perception of the feedback session. Part B provides two vignettes of test interpretation styles and asks participants to identify which style they received and which one they would prefer if given a choice. Items on Part A are answered on a 7-point scale, with higher scores indicating a greater degree of the dimension. The questions on Part B are answered by circling "Style A" or "Style B" to indicate which style was received and which style would be preferred if given a choice. The first question of Part B was reviewed to determine if participants correctly identified the feedback style they received. All but 6 participants correctly identified which style of feedback they received (4 participants selected the incorrect style, 1 participant indicated that she/he did not know which style she/he received, and 1 participant did not answer the question). The SQ was reviewed by peers to ensure clarity before it was included in the present study.

Demographic Questionnaire. The primary researcher designed a demographic questionnaire (see Appendix E). Questions asked participants' age, sex, race/ethnicity, education, experience with counseling or psychological testing, and interest in obtaining information about personality characteristics.

Procedure

The study involved two contacts with each participant. At contact 1, each participant signed an informed consent form (see Appendix G), was briefed on the study procedures, completed a demographic questionnaire, and then completed the NEO Personality Inventory – Revised (NEO PI-R). The NEO PI-R was administered to each

participant in a classroom or testing room. After completing the NEO PI-R, participants signed up for a time to receive the results of their personality test.

One of the four counselors hand-scored each NEO PI-R. Only the 5 major domains of the NEO PI-R were tabulated; subscales were not individually examined in this study. Participants with a T-score of 53 or higher on the extraversion dimension of the NEO PI-R were labeled as "extraverted." Participants with a T-score of 47 or lower were labeled as "introverted." Data from participants with a T-score between 48 and 52 were not used in order to maximize group differences. These participants still received test feedback. However, the feedback sessions for these participants did not follow a particular protocol and these participants were also given written feedback of their results. Assignments to a test feedback style alternated between a delivered style and an interactive style (for both introverted and extraverted participants). In the sample, 35.4% of participants were classified as introverted (N = 29) and 64.6% of participants were classified as extraverted (N = 53). The delivered style of test interpretation feedback was conducted 52.4% of the time (N = 43) and the interactive style of test interpretation feedback was conducted 47.6% of the time (N = 39; See Table 2).

The feedback sessions were conducted by four graduate students enrolled in a counseling psychology or clinical psychology doctoral program. Each of these counselors had completed a counseling techniques course, a psychological measurement course, and at least two semesters of practicum. Counselors were given practicum credit for each completed feedback session. The principal investigator trained the counselors on the NEO PI-R and the delivered and interactive feedback styles. The feedback styles were first fully explained to the counselors. Then, counselors observed the primary

investigator demonstrating the two feedback styles via videotape. Then, counselors practiced each style and were provided feedback by the primary investigator. Practice continued until the primary investigator deemed that competence in each style was achieved. A protocol for each test interpretation style was supplied to each counselor (see Appendix A) to assist in the consistent delivery of the intended styles. Counselors audiotaped the feedback sessions, which were reviewed by outside raters to ensure that the manipulation of the independent variable was achieved (see Appendix F). On the informed consent form, participants indicated whether or not they consented to have their feedback session audiotaped. Audiotapes were used in this study only to ensure that the level of client involvement varied according to style of feedback session received.

At contact 2, participants were given the results of their personality test, either in a delivered or interactive style. In the delivered style, clients were first asked for any reactions or comments about taking the NEO PI-R. Then, an overview of the session was conducted and the NEO PI-R was explained. During this overview, the client was told that the counselor would be interpreting the results for the client. Next, clients were shown their NEO PI-R profile form. The counselor then interpreted each of the 5 scales one at a time. For each scale, the counselor told the client what the domain measures, where the client fell along the domain, and what this score suggests about his/her personality. This process was continued for each of the 5 scales. The counselor then briefly summarized the client's test results and answered questions. Finally, the client was instructed to fill out the questionnaires following the counselor's departure from the room.

In the interactive style, clients were first asked for any reactions or comments about taking the NEO PI-R. Then, an overview of the session was conducted and the NEO PI-R was explained. During this overview, clients were told that they would be actively involved in the test interpretation process. Next, clients were shown their NEO PI-R profile form. The client was then asked with what scale the client would like to begin the test interpretation. The counselor briefly explained what the scale measures and informed the client where she/he fell along the domain. The counselor then asked the client to identify what his/her score along the domain suggests about his/her personality. Next, the client was asked to give an example of how this characteristic is true in his/her life. The client was then asked to identify which scale he/she would like to discuss next and this style of interpretation continued for all 5 scales. The counselor then asked the client to summarize the test results and answered any questions. Finally, the client was instructed to fill out the questionnaires following the counselor's departure from the room.

The feedback sessions lasted approximately 25-30 minutes each and were conducted in a private office. Following the feedback session, participants were asked to complete 3 instruments provided to them in an envelope. The three instruments were the Counselor Rating Form – Short (CRF-S), Session Evaluation Questionnaire (SEQ), and the Satisfaction Questionnaire (SQ). These instruments were placed in the envelopes in alternating order so that order effects would not confound the study.

Participants in this study were identified only by a number, which was recorded on each of their instruments. All participants were treated in accordance with the ethical

standards of the American Psychological Association (American Psychological Association, 1992).

Table 1

Counselor Characteristics and Number/Type of Feedback Sessions Provided

Counselor	Age	Sex	Race	Site	Delivered	Interactive	Total
1	29	F	Asian	1	11	12	23
2	32	F	Asian	1	11	9	20
3	26	F	Euro-Am	2	9	7	16
4	24	F	Euro-Am	2	12	11	23
Total					43	39	82

Table 2

Number of Feedback Sessions by Interpretation Style and Introversion/Extraversion

	Delivered	Interactive	Total
Extraverts	28	25	53
Introverts	15	14	29
Total	43	39	82

CHAPTER FOUR

Results

Preliminary Analyses

Two separate MANOVAs and one ANOVA were initially performed to determine if counselors in the study had unique effects on clients' ratings of the counselor, session, and overall satisfaction. For the first MANOVA, counselor was the independent variable and the three subscales of the CRF-S were the dependent variables. A significant multivariate effect was obtained. Follow-up analyses indicated that counselor 2 was rated as significantly more attractive than counselor 4. However, no other differences among client ratings of counselors were noted.

In the second MANOVA, counselor was the independent variable and the four subscales of the SEQ were the dependent variables. A significant multivariate effect was again obtained. Follow-up analyses indicated that counselor 2 had significantly higher smoothness and positivity ratings than did counselor 3. No other differences among client ratings of the session were obtained.

Finally, an ANOVA was performed with the counselor as the independent variable and a single-item satisfaction question on the SQ ("Overall, how satisfied were you with your feedback session?") as the dependent variable. A significant effect was not found, indicating that individual counselors did not affect clients' ratings on this question.

To determine if sex of the participant affected the ratings among the dependent variables, the above analyses were re-run with sex as the independent variable. No

significant differences were obtained, indicating that ratings were not different between men and women.

To determine if location affected the ratings among the dependent variables, the above analyses were re-run with location as the independent variable. The counselors at university 1 were rated higher in attractiveness and trustworthiness than the counselors at university 2. It should be noted that counselor 2 (discussed above) is from university 1. No other significant differences were obtained with location as the independent variable.

Manipulation Checks

Three manipulation checks were performed on the data. First, question 1 of part B of the SQ asked participants to read two vignettes. One vignette described an interactive test interpretation style and the other vignette described a delivered test interpretation style. Participants were then asked to identify which feedback style they had received. Of the participants who answered the question, 93.9% correctly identified which feedback session they had received.

Second, an ANOVA was performed with interpretation style as the independent variable and a single-item question from the SQ ("How would you rate your level of involvement in the feedback session?") as the dependent variable. Results revealed a significant difference, $F(1, 80) = 7.186$, $p < .01$, suggesting that clients in the interactive condition rated their level of involvement as greater than those clients in the delivered condition.

Third, two independent raters listened to 16 randomly selected audiotapes. These sessions were rated along 5 client involvement dimensions (see Appendix F). Each of the five questions was answered on a 1-7 Likert scale, with higher numbers indicating greater

client involvement. The ratings along the 5 dimensions were added together to form a total score. Total scores could range from 5 to 35. An ANOVA with interpretation style as the independent variable and the total score from the raters' forms as the dependent variable was performed. Results revealed a significant effect, $F(1, 30) = 587.77$, $p < .001$, with the total score significantly higher for the interactive condition.

To calculate inter-rater reliability, total score differences between raters were calculated for each audiotape rated. Total scores within 5 points of each other were labeled as "agreement," while total scores more than 5 points apart were labeled as "disagreement." Using this category system, inter-rater reliability was 94 percent. In other words, raters were in agreement on 15 of the 16 tapes rated. Means for each condition were very similar across raters. For the delivered condition, the means were 7.88 (rater 1) and 8.88 (rater 2). For the interactive condition, means were 33.38 (rater 1) and 31.12 (rater 2). These findings suggest that clients in the interactive condition were significantly more involved in their session than were clients in the delivered condition. These three manipulation checks revealed that the participants noted the intended experimental effects.

Test of Research Questions

See Table 3 for the means and standard deviations among the dependent variables by test interpretation style and introversion/extraversion. See Table 4 for intercorrelations among the dependent variables.

Research Question 1. Will participants' ratings of session impact (as measured by the subscales of the SEQ) differ by feedback style received (delivered or interactive)? A MANOVA with feedback style as the independent variable and the subscales of the

SEQ as the dependent variables was performed. Results revealed no significant effect, F (4, 76) = .962, p > .05 (Wilks' Lambda). This finding suggests that participants' ratings of session impact were not impacted by style of test interpretation received.

Research Question 2. Will participants rate one feedback style as more satisfactory, as measured by question 1 of the SQ? An ANOVA with feedback style as the independent variable and question 1 of the SQ ("Overall, how satisfied were you with your feedback session?") as the dependent variable was performed. Results revealed no significant effect, F (1, 80) = .039, p > .05. This finding suggests that clients' satisfaction with their feedback session did not differ by test interpretation style used.

Research Question 3. Will participants' ratings of the counselor differ based on style of test interpretation used, as measured by the CRF-S? A MANOVA with feedback style as the independent variable and the subscales of the CRF-S as the dependent variables was performed. Results revealed no significant effect, F (3, 77) = .187, p > .05. This finding suggests that clients' ratings of the counselor did not differ by test interpretation style employed.

Research Question 4. Will participants' scores on the introversion/extraversion dimension of the NEO PI-R interact with interpretation style in affecting participants' perception of session impact (as measured by the SEQ)? A 2 (test interpretation style: delivered vs. interactive) X 2 (personality style: introverted vs. extraverted) MANOVA was performed. No significant interaction effect, F (4, 74) = .435, p > .05 or main effect for interpretation style, F (4, 74) = 1.259, p > .05, was found. However, a significant main effect for personality style was identified, F (4, 74) = 5.843, p < .001. Eta squared was .240, indicating that introversion/extraversion accounted for 24% of the variance in

the SEQ subscales. Follow-up analyses showed that extraverts' ratings of the smoothness, positivity, and arousal subscales of the SEQ were higher than the ratings on these subscales by introverts.

Research Question 5. Will participants' scores on the introversion/extraversion dimension of the NEO PI-R interact with interpretation style in affecting participant satisfaction (as measured by question 1 of the SQ)? A 2 (test interpretation style: delivered vs. interactive) X 2 (personality style: introverted vs. extraverted) ANOVA was performed. No significant interaction effect, $F(1, 78) = 2.552$, $p > .05$, or main effect for test interpretation style, $F(1, 78) = .415$, $p > .05$, or main effect for personality style was identified, $F(1, 78) = 1.728$, $p > .05$. This reveals that across conditions, clients did not differ in their satisfaction level with their feedback session.

Research Question 6. Will participants' scores on the introversion/extraversion dimension of the NEO PI-R interact with interpretation style in affecting participants' perceptions of the counselor (as measured by the CRF-S)? A 2 (test interpretation style: delivered vs. interactive) X 2 (personality style: introverted vs. extraverted) MANOVA was performed. No significant interaction effect, $F(3, 75) = .157$, $p > .05$, or main effect for test interpretation style, $F(3, 75) = .180$, $p > .05$, or main effect for personality style was identified, $F(3, 75) = .999$, $p > .05$. This reveals that across conditions, clients did not differ in their ratings of their counselor.

Exploratory Analyses

Although not part of the initial research questions, several additional analyses were performed to determine if the data yielded interesting findings. A MANOVA with past personality testing as the independent variable and subscales of the SEQ as the

dependent variables was performed. Results yielded a significant effect, $F(4, 76) = 3.694$, $p < .01$. Eta squared was .163, indicating that past personality testing accounted for 16.3% of the variance in the SEQ subscales. Follow-up analyses indicated that participants who had previous personality testing rated their feedback sessions higher in the smoothness and positivity dimensions than did participants with no previous personality testing.

A 2 (test interpretation style: delivered vs. interactive) X 2 (past counseling: yes vs. no) MANOVA was performed with the subscales of the SEQ as the dependent variables. A significant interaction was found, $F(4, 74) = 3.412$, $p < .05$. Eta squared was .156, indicating that the interaction of test interpretation style with past counseling accounted for 15.6% of the variance in the SEQ subscales. Follow-up analyses indicated that the difference was in the arousal subscale of the SEQ. Examination of the means revealed that for the interactive test interpretation style, participants rated their arousal level higher if they had not had previous counseling. For the delivered condition, participants rated their arousal level higher if they had previous counseling.

A 2 (test interpretation style: delivered vs. interactive) X 2 (personality style: introverted vs. extraverted) ANOVA was performed with a single-item question from the SQ ("How would you rate your *level of comfort* with your level of involvement in the feedback session?") as the dependent variable. Results revealed a near-significant interaction, $F(1, 78) = 3.667$, $p = .059$ and a significant main effect for personality style, $F(1, 78) = 4.822$, $p < .05$. Eta squared for the interaction effect was .045, indicating that the interaction of test interpretation style with introversion/extraversion accounted for 4.5% of the variance in the ratings of level of comfort with level of involvement in the

feedback session. Eta squared for the main effect of personality style was .058, indicating that introversion/extraversion accounted for 5.8% of the variance in the ratings of level of comfort with level of involvement in the feedback session. Examination of the means revealed that extraverts expressed a greater level of comfort with their involvement in the feedback session. Examination of the near-significant interaction revealed that when an interactive test interpretation style was employed, extraverts (x = 6.40; range from 1-7 with higher numbers indicating greater level of comfort with level of involvement) rated their comfort level higher than introverts (x = 5.29). When a delivered test interpretation style was employed, the means were nearly identical for introverted (x = 6.07) and extraverted (x = 6.14) participants.

On the demographic questionnaire, clients were asked to indicate how interested they were in obtaining information about their personality characteristics. This question was answered on a 1-7 Likert scale, with higher numbers indicating greater interest. The mean rating on this question was 5.96 (SD = 1.01) with a range of 3 to 7. This item was examined to determine if interest in obtaining information about personality characteristics impacted ratings of session impact, counselor influence, or overall satisfaction. No significant differences were found, indicating that interest level in personality testing did not impact ratings on these variables. Further, there were no significant interaction effects between interpretation style and interest level.

NEO PI-R Domains. In order to determine how other personality dimensions (as measured by the NEO PI-R) influenced counselor ratings, session evaluation ratings, and satisfaction ratings, as well as to determine how the NEO PI-R personality dimensions interacted with test interpretation style, the personality domains of neuroticism,

agreeableness, openness, and conscientiousness were recoded into categorical variables. A mean split on these variables was performed, resulting in two categories (high and low) for each variable. Following this procedure, research questions 1-6 were re-run with each of the four NEO PI-R domains as the independent variable. Significant analyses are described below.

A MANOVA with neuroticism as the independent variable and the subscales of the SEQ as the dependent variables was performed. Results revealed a significant effect, $F(4, 76) = 2.759$, $p < .05$. Eta squared was .127, indicating that neuroticism accounted for 12.7 percent of the variance in the SEQ subscales. Follow-up analyses revealed that participants low in neuroticism rated the session higher in the domains of depth, smoothness, and positivity.

An ANOVA with agreeableness as the independent variable and question 1 of the SQ ("Overall, how satisfied were you with your feedback session?") as the dependent variable was performed. Results revealed a significant effect, $F(1, 80) = 4.691$, $p < .05$. Eta squared was .064, indicating that agreeableness accounted for 6.4% of the variance in the overall satisfaction rating. Examination of the means revealed that participants who scored higher on the NEO PI-R dimension of agreeableness rated their session as more satisfactory.

No significant interaction effect between test interpretation style and any of the NEO PI-R domains was found. Likewise, there were no significant differences in ratings on the CRF-S by personality domain.

Further exploratory analyses were run on SQ questions number 3 and 4. An ANOVA with neuroticism as the independent variable and question 4 of the SQ as the

dependent variable was performed ("How would you rate your *level of comfort* with your level of involvement in the feedback session?"). Results revealed a significant effect, $F(1, 80) = 5.350$, $p < .05$. Eta squared was .063, indicating that degree of neuroticism accounted for 6.3 percent of the variance in level of comfort with level of involvement in the feedback session. Examination of the means revealed that participants low in neuroticism rated their comfort level higher. No other significant differences among the NEO PI-R personality domains were noted.

Table 3

Means and Standard Deviations for SEQ Subscales, CRF-S Subscales, and Overall Satisfaction by Test Interpretation Style and Introversion/Extraversion

	Delivered		Interactive	
	Introverts	Extraverts	Introverts	Extraverts
SEQ Depth				
Mean	5.21	5.38	5.03	5.42
SD	1.14	1.04	1.18	0.89
SEQ Smoothness				
Mean	6.27	6.55	5.61	6.35
SD	0.92	0.74	1.26	0.67
SEQ Positivity				
Mean	5.61	6.33	5.19	6.23
SD	1.04	0.73	1.12	0.75
SEQ Arousal				
Mean	3.40	4.18	3.71	4.18
SD	1.10	1.26	1.33	1.04
CRF-S Attractiveness				
Mean	26.27	26.46	25.64	26.48
SD	2.94	2.55	2.62	2.45
CRF-S Expertness				
Mean	24.47	24.41	23.79	24.92
SD	3.16	4.89	3.38	3.25
CRF-S Trustworthiness				
Mean	25.33	25.64	24.57	26.00
SD	3.56	3.35	3.25	2.35
Overall Satisfaction				
Mean	6.13	6.07	5.64	6.28
SD	0.92	1.21	0.84	0.61

Note. SEQ subscale scores range from 1-7. CRF-S subscale scores range from 4 to 28. Overall Satisfaction score ranges from 1-7. In all cases, higher ratings indicate a greater degree of the dimension.

Table 4

Intercorrelations Among SEQ Subscales, CRF-S Subscales, and Overall Satisfaction Question

Measure	1	2	3	4	5	6	7
1. Depth							
2. Smoothness	.39**						
3. Positivity	.57**	.69**					
4. Arousal	.41**	.12	.32**				
5. Attractiveness	.43**	.57**	.50**	.09			
6. Expertness	.58**	.46**	.46**	.24*	.67**		
7. Trustworthiness	.41**	.53**	.44**	.10	.82**	.67**	
8. Satisfaction	.59**	.49**	.57**	.21	.44**	.58**	.45**

*p < .05. **p < .01.

CHAPTER FIVE

Discussion

This study examined how personality dimensions (particularly introversion/extraversion) impacted preferences for a delivered or interactive test feedback style. Preliminary analyses indicated that counselor 1 was rated as more attractive than counselor 4. Further, counselor 2 had significantly higher smoothness and positivity ratings than did counselor 3. Moreover, the counselors at university 1 were rated higher in attractiveness and trustworthiness than the counselors at university 2. It is important to note that the counselors at university 1 (including counselor number 2) had significantly more practicum experience than the counselors at university 2. Although each counselor in the study was either a second-year or third-year doctoral student, the counselors at university 1 had completed 8 semesters of practicum, while the counselors at university 2 had completed only 2 semesters of practicum. The higher attractiveness and trustworthiness ratings of the counselors at university 2 likely reflect this difference in training. Specifically, these counselors have had more experience and thus are more adept at establishing rapport with a client in a short period of time. Due to the short nature of the feedback sessions in this study (25-30 minutes), counselors had only a brief period of time to build rapport. This was likely an easier process for the counselors at university 1 due to their greater amount of practicum experience.

Results of this study found no effect for feedback interpretation style on any of the dependent variables. These findings are consistent with Guzzard (2000) and Hanson (1998), who found no main effect for interpretation style on session impact or counselor ratings. However, these findings are inconsistent with Dressel and Matteson (1950),

Rubinstein (1978), and Hanson et al. (1997). Hanson et al. found that participants in the interactive condition rated the session as greater in depth and rated the counselors higher on the dimensions of attractiveness, expertness, and trustworthiness. The Hanson et al. study differed from Hanson (1998), Guzzard (2000) and the current study in many important ways. First, the Hanson et al. study used only 26 undergraduate honors students. Second, the feedback session in Hanson et al. was the second session in a three-session counseling program. Because clients were involved in a three-session counseling program, they might have been more invested in the test interpretation process. Further, the clients' feedback session was not the first contact with a counselor, which could impact ratings of counselor influence. Finally, the Hanson et al. study interpreted two tests (one personality measure and one career measure) instead of interpreting only one test. It is possible that any or all of these factors could have contributed to the measured differences across conditions within the study.

In the current study, three manipulation checks revealed that the two conditions were indeed different and perceived as different by the participants. Thus, the manipulation of test interpretation style worked as intended. However, no significant differences for interpretation style were noted. There are several potential reasons for these results. First, it is possible that the session length (25-30 minutes) was too short to detect differences in the perception of counselor, session impact, or overall satisfaction. Perhaps lengthening the session and thus allowing the client to experience the intended style for a longer period of time would create different results.

Second, it is possible that interpretation style is not a salient variable in clients' perceptions of the counselor and the session. Specifically, it is possible that clients are

simply seeking the results of their personality test and the way in which the results are delivered does not matter to them. The clients may be more interested in the content of the feedback rather than the style in which it is presented. In other words, the salient variable might be what is said rather than how it is said.

Third, the information provided to clients in this study resulted from their answers on a self-report personality test. Therefore, the results were likely not too surprising to participants and in most cases likely confirmed already-held beliefs regarding their personality. Perhaps because clients were given information that was not novel, the style in which the results were delivered had little impact. It would be interesting to study how the delivery of truly new information or concepts in the feedback session impacts preference for a particular feedback style.

Finally, there may have been an interesting phenomenon occurring in the feedback sessions that in essence "cancelled out" the expected effects. Specifically, session depth may be compromised for different reasons in each of the feedback styles. In the interactive style, the session may not have been perceived as deep because the counselor asked the client to be active in the session and did not provide all of the information addressed during the session. Thus, the counselor did not take on an expert role as the client might have expected and this may have led to the client feeling cheated in some way. In the delivered condition, the client had very limited involvement in the session and thus the client may not have perceived the session as deep. If the above conditions were indeed true, the ratings of the sessions would come out approximately equal on session depth, but for very different reasons.

The issue of client expectations of counselor performance may be a mediating factor in this study. Specifically, the client likely came to the session with some type of expectation regarding counselor behavior. Some clients may have expected the counselor to deliver the personality feedback in a straightforward manner, assume the expert role, and ask for little feedback from the client. Other clients may have expected the counselor to ask them questions about their personality and tie the results into their lives. These expectations, and not a particular interpretation style, may be the most important factor in clients' ratings of the counselor, session impact, and overall satisfaction. This phenomenon will need to be studied empirically to determine its true merit.

Research question 4 found that extraverts rated their session higher on the smoothness, positivity, and arousal dimensions than did introverts. This finding makes sense intuitively. Extraverts in general are likely more willing to be engaged in the session – whether in a delivered or interactive style – which will result in a session that is perceived as smoother, more positive, and more arousing. Extraverts may also be more willing to talk about themselves to a stranger than are introverts. Finally, extraverts are likely to be more energized by their interaction with a counselor than introverts, resulting in different perceptions and ratings of the overall session impact.

Research questions 4, 5, and 6 found no interaction effect between test interpretation style and introversion/extraversion. Manipulation checks verified that the two interpretation styles were perceived differently and as intended. Further, eliminating data from participants whose T-scores were 48-52 on the extraversion scale of the NEO PI-R ensured that the extraverted group was categorically different from the introverted group. Therefore, the lack of significant findings of the interaction between feedback

style and introversion/extraversion was not due to improper manipulation of the independent variable or the personality groups being too similar to each other. As indicated in the exploratory analyses, there was a difference in comfort level with involvement in the feedback session between introverted and extraverted participants. Specifically, extraverts rated their level of comfort with their level of involvement in the feedback session higher than introverts. However, this difference in comfort level did not translate into differences in ratings of counselor, session impact, or overall satisfaction.

There are several possible explanations for these findings. First, as stated previously, the session may have been too brief for the client to have enough data to rate. Second, there was little variation in ratings among delivered and interactive feedback styles (see Table 3). Specifically, the counselor, session impact, and overall satisfaction were generally rated quite high irrespective of feedback style (delivered vs. interactive) or personality style (introversion vs. extraversion). Because ratings were generally high, little variation among the ratings existed. Finally, as discussed previously, clients were receiving mainly confirmatory information during their feedback session (in both the interactive and delivered conditions). According to Finn and Tonsager (1997), self-verification is one of the basic human motives addressed by psychological assessment feedback. Because this motive is fulfilled through the interpretation of the NEO PI-R, clients rated their session and counselor as satisfactory, irrespective of feedback style employed or personality style of participants.

Another plausible explanation exists that could help explain the lack of significant findings between test interpretation style and introversion/extraversion. It is possible that extraverts and introverts value both interactive and delivered conditions, but for different

reasons. Specifically, introverts might value an interactive style due to the possibility for deeper self-focused introspection despite the interpersonal interaction with a counselor. Further, extraverts might value the delivered style because it does not call for as much introspection yet does involve responding to another person in a social context. In other words, introverts value a delivered style due to the lower interaction required, but value an interactive style due to the greater introspection required. Extraverts value an interactive style due to the higher interpersonal involvement, but value a delivered style because of the lower introspection required. If true, the results would counter each other and no significant differences would be found across conditions.

Last, the exploratory analyses revealed that for the most part, personality domains as measured by the NEO PI-R had little impact on the dependent variables. Exceptions include the domains of neuroticism and agreeableness. Specifically, participants lower in neuroticism rated the session higher in depth, smoothness, positivity, and comfort level. Participants high on agreeableness rated their session as more satisfactory overall. These findings make intuitive sense and are not particularly noteworthy in the context of the test interpretation feedback literature. The fact that personality style had minimal impact on the dependent variables and did not interact with test interpretation feedback style indicates that personality style may not be the most salient variable in determining the style of feedback session to employ with a particular client.

Limitations and Future Research

There are several limitations to the current study. First, the sample consisted of 65% extraverted participants and 35% introverted participants. Although this is a subject variable and cannot be manipulated, it might have made a difference in the statistical

analyses since the cell sizes for introverted participants were lower than the cell sizes for extraverted participants. Future studies should attempt a more even division along this personality dimension.

Second, the participants used in this study were volunteers and not clients currently in therapy or currently seeking personality testing information. This may have affected ratings, as volunteers may not have been as invested in the process as would actual clients. Third, it might be necessary to employ more sensitive measurements so that more variation in the ratings will exist. In this study, the counselor, session, and satisfaction ratings were generally high overall and little variation existed. Perhaps additional measurements or measurements with more sensitivity would better capture any interaction between personality dimensions (specifically introversion/extraversion) and interpretation style. Finally, the four counselors used in this study had discrepant levels of training. Although all counselors were second- or third-year doctoral students, two counselors had only 2 semesters of practicum while the other two counselors had 8 semesters of practicum. Further studies should attempt to have similar training levels across all counselors used in the study.

There are several directions for future research in the test interpretation literature. First, most of the studies in the area thus far (e.g. Guzzard, 2000; Hanson, 1998) have used feedback sessions that have lasted approximately 20-30 minutes. Future research should examine how lengthening the feedback session affects the dependent variables. Doing so might produce more variation in the ratings and allow the test interpretation style to develop more fully in the session.

Second, the expectations of participants should be examined. A questionnaire should be developed that examines the expectations of participants prior to engaging in their feedback session. This questionnaire should focus on the expectations of the counselor (e.g. activity level in the session) and of themselves (e.g. personal involvement in the session). A post-feedback expectations questionnaire should also be developed to determine how well participants' expectations were met during the feedback session. This information should be analyzed to determine what role, if any, client expectations play when examining test interpretation feedback styles.

Third, it would be interesting to examine feedback sessions for a combination of tests instead of focusing on only one instrument. The current study, as well as Guzzard (2000) and Hanson (1998) used only one instrument. Hanson et al. (1997) used a personality test and a career test. It is interesting to note that Hanson et al. found significant effects for test interpretation style. Future research in this area might examine integrated feedback sessions with two or more instruments to determine the effects, if any, this has on the dependent variables.

Fourth, it is important to study how participants' cultural/ethnic background may affect preferences for a delivered or interactive test interpretation style. Further, studying levels of acculturation within these groups may yield some important information for clinicians.

Fifth, future studies should examine the effects of interpretation style immediately following the feedback session and after a period of time has lapsed (e.g. one month). Since some studies have indicated that client involvement affects recall of test results after a time delay (e.g. Holmes, 1964), it is important to measure what the long-term

effects are of each of the interpretation styles. It is possible that effects may not show immediately following the session, but may show after a time delay.

Sixth, it would be interesting to determine what effects, if any, a combined test interpretation style (i.e. both delivered and interactive) has on the dependent variables. Since it appears that both interactive and delivered styles have unique advantages, the combination of the two styles within a feedback session may prove most effective. In a combined test interpretation session, the counselor might initially direct the session and subsequently move into an interactive style. The combined style could be compared to the interactive and delivered conditions to determine the differential effectiveness of each style.

Seventh, future studies might investigate the effects of utilizing a feedback session as part of a multiple-session counseling sequence. For example, Hanson et al. (1997) provided test feedback during the second session of a three-session counseling program. A multiple-session counseling sequence could be compared to a single session interpretation to determine if differences exist by feedback style among ratings of the session, counselor, and overall satisfaction.

Finally, future studies should attempt to use actual clients instead of volunteers. The use of actual clients may be a better indicator of differences of test interpretation style on counselor, session impact, and satisfaction ratings.

This area of the literature is clearly in its infancy and much more research needs to be conducted in order to better understand the process of test interpretation feedback. Throughout this quest for better understanding, it is important to keep in mind what effects are most desirable. Are we trying to determine what type of feedback session has

greater impact on the client? Better ratings of counselors? Better recall of results at a later date? Better overall satisfaction with the session? Increased gains in self-understanding? Greater likelihood to use any recommendations offered? These types of questions should drive future studies in this area.

Since the literature in this area is so young, we are still exploring the differential effects of interactive and delivered feedback styles and what variables have the most impact on preference for a particular feedback style. The current study found (1) no significant differences among interpretation styles and (2) the dimension of extraversion/ introversion, as measured by the NEO PI-R, has no impact on preferences for a delivered or interactive feedback style. These findings support Tinsley and Chu's (1999) assertion that no substantial empirical relationship exists between client participation and effectiveness of the test interpretation feedback session. However, as Tinsley and Chu suggested, further investigation may uncover a positive relationship between client participation and test interpretation effectiveness. The "best practices awareness" principle stipulates that counselors need to conduct treatment in a way that best serves the client. In the area of test interpretation feedback, the best way to serve clients is unknown and remains virtually unexplored. More research and interest in this area will lead to better informed therapists and, more importantly, better service delivery to clients.

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Appendix A

Test Interpretation Protocols

Delivered Interpretation

A. Greeting/Reaction to Taking NEO PI-R

[Greet the client]. Do you remember taking the NEO PI-R? How did you feel about taking it? Any reactions or comments?

B. Overview of the Session

Today we are going to review your results on the NEO PI-R. I will interpret the results for you, scale by scale. We will have time for questions at the end of the session, but if you have any questions along the way, feel free to ask them as we go. Are you ready to begin?

C. Introduction of the NEO PI-R

Before we begin, I want to tell you a little bit about the NEO PI-R. This instrument is a measure of five important personality dimensions. The test is widely used and research shows that each scale measures what it is supposed to measure. Even though the NEO PI-R is one of the best personality instruments, it is up to you to determine how well the results really fit with your personality.

D. Interpretation of Results

[Show client the profile form]. As you can see, the NEO PI-R measures five personality dimensions. Each of these five dimensions is divided into 6 subscores. Today we are going to focus only on the five major dimensions. As you can see, 50 is the average score on each of the 5 dimensions. Scores below 34 are considered in the very low range. Scores ranging from 35 to 44 are in the low range. Scores ranging from 45 to 54 are in the average range. Scores ranging from 55 to 64 are in the high range. Scores above 65 are in the very high range.

Let's start with scale N. This scale measures [enter descriptors]. You scored [very low, low, average, high, very high] on this scale. This suggests [enter appropriate descriptors for score]. [Continue in this fashion for scales E, O, A, and C].

E. Summary of Results

I would now like to briefly summarize your test results. You scored [very low, low, average, high, very high] on [enter scale], which means relative to other people, you are [enter appropriate descriptors].

This concludes the interpretation session, but I want to be sure to leave time for questions. Do you have any questions? [If so, answer questions briefly and either restate or clarify information already given].

F. Wrap-Up

I will now leave the room. Please fill out the short questionnaires in this packet and place the packet in the box by the door. Your answers to the questions will remain anonymous. I will not see your questionnaires. Thank you for your time.

[Turn off tape recorder].

Test Interpretation Protocols

Interactive Interpretation

A. Greeting/Reaction to Taking NEO PI-R

[Greet the client]. Do you remember taking the NEO PI-R? How did you feel about taking it? Any reactions or comments?

B. Overview of the Session

Today we are going to review your results on the NEO PI-R. I will begin by giving you a little bit of information about the test and the scales, but I want you to be involved as much as possible in relating the test results to your own life. Are you ready to begin?

C. Introduction of the NEO PI-R

Before we begin, I want to tell you a little bit about the NEO PI-R. This instrument is a measure of five important personality dimensions. The test is widely used and research shows that each scale measures what it is supposed to measure. Even though the NEO PI-R is one of the best personality instruments, it is up to you to determine how well the results really fit with your personality.

D. Interpretation of Results

[Show client the profile form]. As you can see, the NEO PI-R measures five personality dimensions. Each of these five dimensions is divided into 6 subscores. Today we are going to focus only on the five major dimensions. As you can see, 50 is the average score on each of the 5 dimensions. Scores below 34 are considered in the very low range. Scores ranging from 35 to 44 are in the low range. Scores ranging from 45 to 54 are in the average range. Scores ranging from 55 to 64 are in the high range. Scores above 65 are in the very high range.

Now I would like you to look at your profile form and let me know which scale you would like to start with. This scale measures [enter descriptors]. You scored [very low, low, average, high, very high] on this scale. What might your score on this scale suggest about you? [Elicit at least 3 descriptors. Praise or modify client's descriptors as appropriate]. Can you give me an example or two of how you see this being true in your life? Which scale would you like to discuss next? [Continue in this fashion for remaining scales].

E. Summary of Results

I would now like you to briefly summarize what the test results said about you. What conclusions can you draw about yourself based on these results?

This concludes the interpretation session, but I want to be sure to leave time for questions. Do you have any questions? [If so, answer questions briefly and either restate or clarify information already given].

F. Wrap-Up

I will now leave the room. Please fill out the short questionnaires in this packet and place the packet in the box by the door. Your answers to the questions will remain anonymous. I will not see your questionnaires. Thank you for your time.

[Turn off tape recorder].

Appendix B

COUNSELOR RATING FORM – SHORT

On this instrument, a seven-point scale that ranges from "not very" to "very" follows each characteristic. Please mark with an 'X' the point on the scale that best represents how you viewed the counselor from whom you received feedback on your personality instrument. For example, the following ratings might show that the counselor was unconfident, but was dressed well.

Confidence

Not very ___ X ___ ___ ___ ___ ___ Very

Well Dressed

Not very ___ ___ ___ ___ ___ ___ X Very

Please respond to the following 12 counselor characteristics. Please answer each question.

Friendly

Not very ___ ___ ___ ___ ___ ___ ___ Very

Experienced

Not very ___ ___ ___ ___ ___ ___ ___ Very

Honest

Not very ___ ___ ___ ___ ___ ___ ___ Very

Likeable

Not very ___ ___ ___ ___ ___ ___ ___ Very

Expert

Not very ___ ___ ___ ___ ___ ___ ___ Very

Reliable

Not very ___ ___ ___ ___ ___ ___ ___ Very

Sociable

Not very ___ ___ ___ ___ ___ ___ ___ Very

Prepared

Not very ___ ___ ___ ___ ___ ___ ___ Very

Sincere

Not very ___ ___ ___ ___ ___ ___ ___ Very

Warm

Not very ___ ___ ___ ___ ___ ___ ___ Very

Skillful

Not very ___ ___ ___ ___ ___ ___ ___ Very

Trustworthy

Not very ___ ___ ___ ___ ___ ___ ___ Very

Appendix C

SESSION EVALUATION QUESTIONNAIRE

Please place an 'X' for each item to show how you feel about this session. Please respond to each question.

This session was:

Bad	___ ___ ___ ___ ___ ___ ___	Good
Safe	___ ___ ___ ___ ___ ___ ___	Dangerous
Difficult	___ ___ ___ ___ ___ ___ ___	Easy
Valuable	___ ___ ___ ___ ___ ___ ___	Worthless
Shallow	___ ___ ___ ___ ___ ___ ___	Deep
Relaxed	___ ___ ___ ___ ___ ___ ___	Tense
Unpleasant	___ ___ ___ ___ ___ ___ ___	Pleasant
Full	___ ___ ___ ___ ___ ___ ___	Empty
Weak	___ ___ ___ ___ ___ ___ ___	Powerful
Special	___ ___ ___ ___ ___ ___ ___	Ordinary
Rough	___ ___ ___ ___ ___ ___ ___	Smooth
Comfortable	___ ___ ___ ___ ___ ___ ___	Uncomfortable

Right now I feel:

Happy	___ ___ ___ ___ ___ ___ ___	Sad
Angry	___ ___ ___ ___ ___ ___ ___	Pleased
Active	___ ___ ___ ___ ___ ___ ___	Still
Uncertain	___ ___ ___ ___ ___ ___ ___	Definite
Involved	___ ___ ___ ___ ___ ___ ___	Detached
Calm	___ ___ ___ ___ ___ ___ ___	Excited
Confident	___ ___ ___ ___ ___ ___ ___	Afraid
Alert	___ ___ ___ ___ ___ ___ ___	Sleepy
Friendly	___ ___ ___ ___ ___ ___ ___	Unfriendly
Slow	___ ___ ___ ___ ___ ___ ___	Fast
Joyful	___ ___ ___ ___ ___ ___ ___	Joyless
Quiet	___ ___ ___ ___ ___ ___ ___	Aroused

Appendix D

Satisfaction Questionnaire
Part A

Please answer the following questions regarding the feedback session you experienced. Circle the number that reflects how you feel about this session. Please respond to each question.

1. Overall, how satisfied were you with your feedback session?

1	2	3	4	5	6	7
NOT AT ALL SATISFIED						EXTREMELY SATISFIED

2. How would you rate your level of involvement in the feedback session?

1	2	3	4	5	6	7
NOT AT ALL INVOLVED						EXTREMELY INVOLVED

3. How would you rate your *satisfaction* with your level of involvement in the feedback session?

1	2	3	4	5	6	7
NOT AT ALL SATISFIED						EXTREMELY SATISFIED

4. How would you rate your *level of comfort* with your level of involvement in the feedback session?

1	2	3	4	5	6	7
NOT AT ALL COMFORTABLE						EXTREMELY COMFORTABLE

5. To what extent was the test interpretation session helpful to you?

1	2	3	4	5	6	7
NOT AT ALL HELPFUL						EXTREMELY HELPFUL

6. How consistent were the test results with your existing ideas about your personal characteristics?

1	2	3	4	5	6	7
NOT AT ALL CONSISTENT						EXTREMELY CONSISTENT

7. What did you like most about your feedback session?

   a._____

   b._____

   c._____

8. What were you less than satisfied with/what could be improved regarding your feedback session?

   a._____

   b._____

   c._____

Part B

Please read the following descriptions of two different types of feedback sessions and answer the questions that follow.

Feedback Style A: *The counselor tells you that the test results will be interpreted for you. The counselor then labels and describes the relevant parts of the testing instrument. After describing each part of the test, the counselor provides an example of what your score might mean. At the end of the session, the counselor summarizes your testing results and asks you for questions or comments. At this time, the counselor answers questions and clarifies information.*

Feedback Style B: *The counselor tells you that you will be involved in interpreting the testing results. The counselor asks you for your reactions to the testing experience and then asks where you would like to begin the feedback process. The counselor labels and describes the relevant parts of the testing instrument. After describing each part of the test, the counselor asks you to give one or two examples from your life that fit with your results of the test. At the end of the session, the counselor asks you to summarize your testing results and asks what conclusions you can draw about yourself based on the results.*

1. Which one of these styles comes closer to the feedback session you received?

   Style A
   Style B
   Don't know/Neither

2. Regardless of the type of style you received at your feedback session, which of the styles described above would you **prefer**, if given a choice?

   Style A
   Style B
   Don't know/No preference

Appendix E

Demographic Questionnaire

Please respond to the following questions. Your answers will remain confidential. Please answer each question.

1. Age:_____

2. Sex (circle one):
   Male
   Female

3. Race (circle one):
   African-American/Black
   Asian/Pacific Islander
   Bi-racial
   European-American/White
   Hispanic/Latino(a)
   Middle Eastern
   Native American

4. Please indicate the highest level of education you have completed (circle one):
   Less than high school
   Completed high school
   Completed some college
   Completed bachelor's degree
   Completed some graduate work
   Completed graduate degree

5. Have you ever completed personality testing in the past?
   Yes
   No

6. Have you attended any counseling sessions in the past?
   Yes
   No

7. Currently, how interested are you in obtaining information regarding your personality characteristics?

1	2	3	4	5	6	7
NOT AT ALL INTERESTED						EXTREMELY INTERESTED

Thank you very much for your participation in this research project!

Appendix F

Rater's Questionnaire

1. To what extent was the client involved in the feedback session?

1	2	3	4	5	6	7
NOT AT ALL INVOLVED						EXTREMELY INVOLVED

2. To what extent did the counselor ask the client for examples of how the personality constructs fit with his/her life?

1	2	3	4	5	6	7
ASKED FOR NO EXAMPLES						ASKED FOR MANY EXAMPLES

3. Who summarized the results of the session?

1	2	3	4	5	6	7
COUNSELOR ONLY SUMMARIZED RESULTS						CLIENT ONLY SUMMARIZED RESULTS

4. Who determined the order of personality scales to discuss?

1	2	3	4	5	6	7
COUNSELOR ONLY DETERMINED ORDER						CLIENT ONLY DETERMINED ORDER

5. To what extent was the session focused on eliciting the views and perspectives of the client?

1	2	3	4	5	6	7
NOT AT ALL						EXTREMELY

Appendix G

INFORMED CONSENT FORM FOR RESEARCH BEING CONDUCTED UNDER THE AUSPICES OF THE UNIVERSITY OF OKLAHOMA-NORMAN CAMPUS

INTRODUCTION

This study is entitled "An examination of the relationship between personality dimensions and preference for a delivered or interactive test feedback style." The person directing this project is Kimberly Corner, M.Ed. The faculty sponsor for this project is Terry Pace, Ph.D. This document defines the terms and conditions for consenting to participate in this study.

DESCRIPTION OF THE STUDY

The purpose of this study is to evaluate how personality dimensions impact your ratings of a test feedback session. During the first part of the study, you will take a well-known personality instrument called the NEO PI-R (NEO Personality Inventory-Revised). After completing the instrument, you will sign up for an appointment to hear the results of your test. During the second part of the study, you will be given the results of your personality instrument. Following the feedback session, you will be asked to fill out several questionnaires regarding your experience. In total, the study should take approximately 1.5 to 2 hours to complete.

RISKS AND BENEFITS

Risks: It is possible that you may be confused or distressed about your personality results. If this occurs, counselors will use appropriate counseling skills in the session to help clarify any confusion and ease any distress. Further, counselors will make appropriate referrals to counseling agencies as necessary.

Benefits: You will be given information on your personality style, which could lead to greater self-understanding.

CONDITIONS OF PARTICIPATION

To participate, you must be 18 years of age or older. Your participation is voluntary. Refusal to participate will involve no penalty or loss of benefits to which you are otherwise entitled. You have the option to discontinue participation at any time without penalty or loss of benefits to which you are otherwise entitled. If you are participating for course credit in a psychology class, you must complete both parts of the study in order to receive full credit.

CONFIDENTIALITY

Findings will be presented in aggregate form with no identifying information to ensure confidentiality.

AUDIOTAPING OF STUDY ACTIVITIES

To assist with accurate reporting of the study protocol, feedback sessions will be recorded on an audio recording device. A portion of the audiotapes will be reviewed in order to ensure that the study protocol was followed correctly. All audiotapes will be erased after being reviewed. Participants have the right to refuse to allow such taping without penalty. Please select one of the following options.

[ ] I consent to the use of audio recording.
[ ] I do not consent to the use of audio recording.

CONTACTS FOR QUESTIONS ABOUT THE STUDY

If you have questions about the research project, please contact Kimberly Corner at (316) 978-3440 (kcorner@ou.edu) or Terry Pace at (405) 325-5974 (tpace@ou.edu). If you have questions about your rights as a research participant, please contact the University of Oklahoma-Norman Campus Institutional Review Board (OU-NC IRB) at (405) 325-8110 or irb@ou.edu.

PARTICIPANT ASSURANCE

I have read and understand the terms and conditions of this study and I hereby agree to participate in the above-described research study. I understand my participation is voluntary and that I may withdraw at any time without penalty.

Signature of Participant	Date
Printed Name of Participant	Researcher Signature