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A Field Test of the Perceptions of the Qualitative Characteristics of Statement of Financial Accounting Concepts No. 2 by Practicing Cpas (Multitrait-Multimethod, Mtmm, Analytic Hierarchy Process, Ahp).

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The Louisiana State University and Agricultural and Mechanical Col. PH.D. 1985

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A FIELD TEST OF THE PERCEPTIONS OF THE QUALITATIVE CHARACTERISTICS OF STATEMENT OF FINANCIAL ACCOUNTING CONCEPTS NO. 2 BY PRACTICING CPAs

A Dissertation

Submitted to the Graduate Faculty of the
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ABSTRACT

In 1980 the Financial Accounting Standards Board issued Statement of Financial Accounting Concepts No. 2: Qualitative Characteristics of Accounting Information. This Statement provides characteristics that, according to the Board, are the qualities that make accounting information useful. Nine of these qualitative characteristics are examined in a questionnaire study to determine if they are operational, comprehensive, and parsimonious. Operationality refers to the ability of accountants to actually use the characteristics when choosing accounting methods. Comprehensiveness refers to the set of characteristics being a complete one. If none of the qualitative characteristics expressed in the Statement are redundant the set is considered a parsimonious one.

Questionnaires were distributed to the Washington, D.C., offices of Big Eight firms in 1985. Twenty-one of twenty-four questionnaires were returned. The questionnaire asked the subjects about the qualitative characteristics within the context of eight accounting issues.

The multitrait-multimethod matrix and two separate analyses of variances are used to determine if the set of characteristics are operational and parsimonious. The qualitative characteristics are considered operational if both convergent and discriminant validity are present. The characteristics are considered parsimonious if discriminant validity is found.

An analysis of variance proposed by Kavanagh and a repeated measures ANOVA were used to determine if convergent and discriminant validity are present. The results of the Kavanagh procedure indicated convergent and discriminant validity, but method bias was indicated. Therefore, the repeated measures ANOVA was performed, and it also indicated both convergent and discriminant validity. These results indicate that the subjects are able to agree as to the meaning of like characteristics and differentiate between characteristics that are meant to be different. This evidence suggests that the characteristics are operational and parsimonious.

The major test for comprehensiveness involved the use of two linear models to predict each subject's preference of accounting method. Weights for the models were computed using the analytic hierarchy process. The hit ratios (percentage of times the model predicted correctly) were less than perfect, at 64.2 percent and 75.6 percent overall. If the set of qualitative characteristics is to be considered comprehensive one would hope that the predictive accuracy would be higher.

CHAPTER I

INTRODUCTION

Introduction

In 1980 the Financial Accounting Standards Board (FASB) issued Statement of Financial Accounting Concepts No. 2: Qualitative Characteristics of Accounting Information (SFAC No. 2). SFAC No. 2 is one in a series of publications in the FASB's conceptual framework project. It represents the latest attempt by accounting policy makers to articulate characteristics that make accounting information useful.

The FASB states that to maximize the usefulness of accounting information choices must be made between alternative accounting methods. Those choices will be made more wisely if the attributes that contribute to usefulness are better understood. The Board (1980, pp. 2-3) states that the characteristics or qualities of information discussed in SFAC No. 2 are, indeed, the ingredients that make accounting information useful. They are, therefore, the qualities to be sought when accounting choices are made.

> Accounting choices are made on at least two levels:
>
> At one level they are made by the Board or other agencies that have the power to require business enterprises to report in some particular way or, if exercised negatively, to prohibit a method that those agencies consider undesirable....
>
> Accounting choices are also made at the level of the individual enterprise. As more accounting standards are issued, the scope for individual choice inevitably becomes circumscribed. But there are now and will always be many accounting decisions to be made by reporting enterprises involving a choice between alternatives for which no standard has been promulgated or a choice between ways of implementing a standard (FASB, 1980, p. 3).

Implicitly included in the second level is the CPA firm's task of evaluating the clients' choice of accounting method.

Often an auditor or accountant must evaluate whether the client's choice of accounting method is appropriate for a given situation. According to the FASB, these choices will be made more wisely if the ingredients that contribute to usefulness are better understood. The FASB also states that characteristics espoused in SFAC No. 2 are the ingredients that make accounting information useful. Therefore, the method chosen should be the one that possesses the greatest amounts of the qualities that make accounting information useful.

Nine qualitative characteristics are examined in this study. They are:

Relevance
Predictive Value
Feedback value
Timeliness
Reliability
Verifiability
Neutrality
Representational faithfulness
Comparability

These qualitative characteristics are discussed in the next section of this chapter.

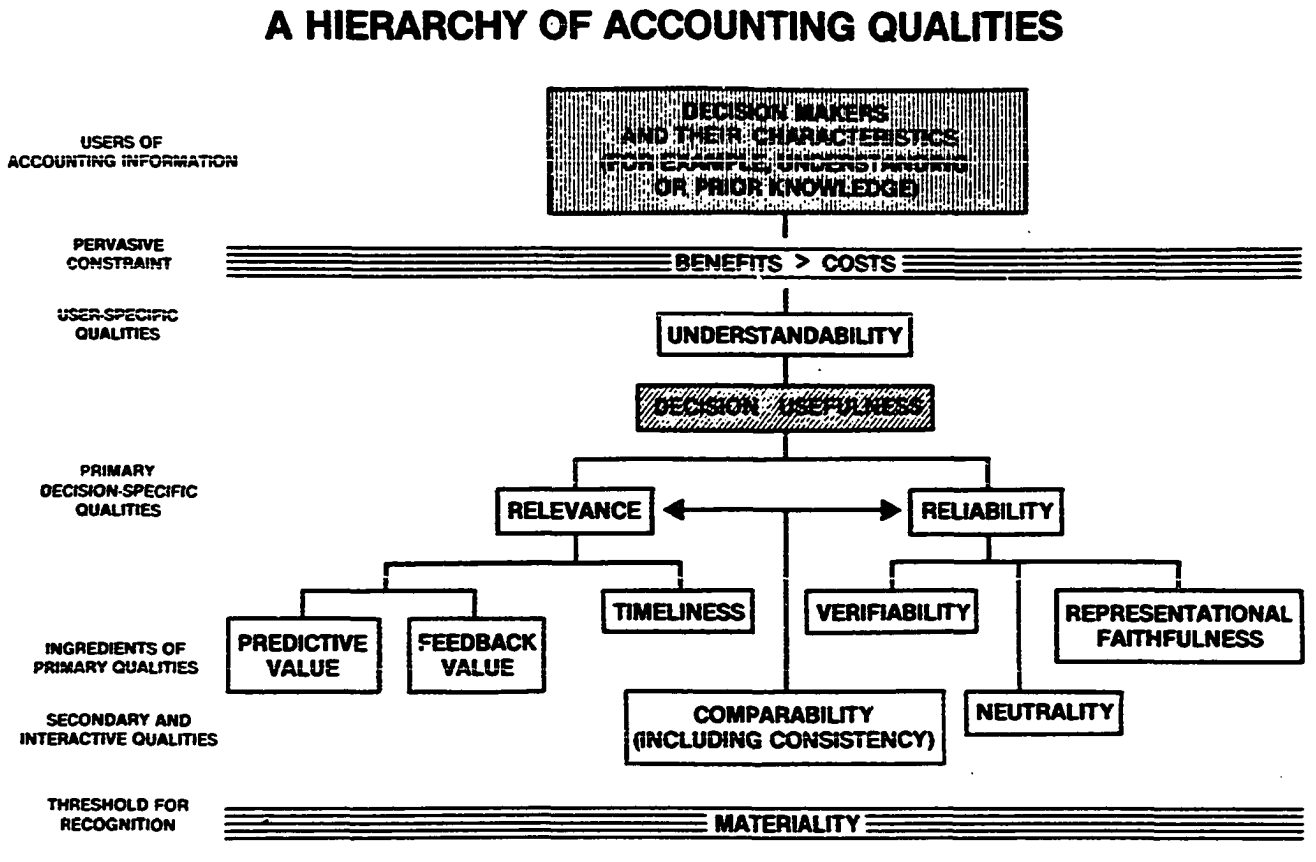
The Hierarchy of Accounting Qualities

Exhibit 1 shows the hierarchy of accounting qualities in SFAC No. 2. The discussion that follows briefly defines the qualities of the hierarchy.

Usefulness for decision making is the most important quality, according to SFAC. No. 2. Without decision usefulness there are no

EXHIBIT 1

HIERARCHY OF ACCOUNTING QUALITIES



Source: SFAC No. 2, p. 15

benefits to be derived from the financial information being provided. Contributing to decision usefulness are two primary decision-specific qualities, relevance and reliability. If either of these two qualities are completely missing from the information presented the information will not be useful. Relevance, as defined in the Statement, refers to the information's ability to "make a difference" in a situation. The simple fact that information is logically related to a decision situation is not enough. The information's ability to make a difference is what makes it relevant.

The qualities that make information relevant are feedback value, predictive value, and timeliness. Feedback value refers to the quality present in information that allows one to confirm or correct his prior expectations. Predictive value refers to a quality in information that aids one in the correct forecasting of the outcome of past or present events. Timeliness is an auxiliary aspect of relevance. Timeliness refers to having information available before that information loses its ability to influence a decision.

Reliability is the quality assuring that the information presented is reasonably free from error and bias. Accounting information is reliable to the extent that it can be depended on to represent the economic events and conditions that it intends to represent.

The qualities that make information reliable are verifiability, representational faithfulness, and neutrality. Verifiability represents the ability, through consensus among measurers, to ensure that the information represents what it says it represents. Representational faithfulness is the correspondence or agreement between the information

and the phenomenon it is supposed to represent. Representational faithfulness can also be described by the term validity. Neutrality interacts with these two characteristics and affects the information's usefulness. The characteristic neutrality says that the primary emphasis should be the relevance and reliability of the information, not the effect the information might have on a particular interest.

Also included in the hierarchy is the quality of comparability (including consistency). Comparability is not a quality in the same sense as relevance or reliability. Rather, comparability is a quality of the relationship between two or more pieces of information. The decision usefulness of information is greatly enhanced if that information can be compared with similar information about the same enterprise for a different period of or point in time. Comparability is a quality that can affect the relevance and reliability of information. Comparability can be stressed to the extent that relevance and reliability could suffer. Thus, comparability is a quality that interacts with relevance and reliability.

The qualities mentioned above are all qualities that contribute to the decision usefulness of accounting information. There are other qualities, however, that are also included in the hierarchy. Understandability, for example, does not contribute directly to the decision usefulness of information. Rather, understandability is a user-specific quality that serves as a link between users (decision makers) and the decision-specific qualities of information. The Board was concerned with the qualities of information that relate to broad classes of decision-makers, not particular groups of decision makers. Thus, the

question of understandability applies not to the information itself, but to the person. The Board establishes concepts and standards by considering the broad classes of decision makers and does not base its decisions on the specific circumstances of individual decision makers.

The requirement that benefits be greater than costs is the pervasive constraint in the hierarchy. Unless the benefits to be derived from information exceed the cost of providing that information, the information will not be sought. No information should be presented if the benefits greater than costs test is not met.

Materiality is also included in the hierarchy, as the threshold for recognition. Materiality is not a characteristic of information in the same sense as relevance and reliability. Materiality asks if the item under question is large enough to have an influence in a decision. An item of financial information will not be disclosed if it is deemed too small to make a difference.

Thus, understandability, benefits greater than costs, and materiality represent qualities that are not like the others in the hierarchy. Simply stated, information will not be presented if it is immaterial or if its cost exceeds the benefits to be derived from it. Also, understandability is a quality that applies not to the information itself, but to the person involved. As a result, the qualities that are examined in this study are those that effect the decision usefulness of the information, given the constraints just discussed.

Statement of the Problem

At the heart of SFAC No. 2 is the assumption that identifying and defining the appropriate characteristics will aid in selecting the most appropriate financial accounting methods. According to the FASB three necessary conditions should exist if the qualitative characteristics are to aid in correct decision making. The qualitative characteristics should be operational, comprehensive, and parsimonious.

Operationality refers to the ability of accountants to actually use the qualitative characteristics when choosing accounting methods. The qualitative characteristics of SFAC No. 2 are at a high level of abstraction. The FASB states (paragraph 327), "The test of abstractions is . . . whether they are referrable to lower levels . . . . They are acceptable and accepted as broad standards, but they need to be more concrete in judging financial statement information." In other words, the characteristics need to be usable in real world situations that are not at such high levels of abstraction.

Comprehensive implies that the set of qualitative characteristics in SFAC No. 2 is a complete one. That is, no important characteristics have been omitted. The Board states that the qualitative characteristics are the ingredients that make accounting information useful and they are, therefore, the qualities that should be sought when accounting choices are made (paragraph 5). During the Board's deliberations some respondents have urged the inclusion of other qualities into the hierarchy. These suggestions were excluded, however, because they did not appear to add anything that was not already accounted for in the existing characteristics. "To earn a place . . . something really important must be

added. None of the new candidates passed that test." (paragraph 158.) Thus, the FASB believes the characteristics in SFAC No. 2 comprise a comprehensive set.

Parsimony, as used here, would be indicated if no redundant characteristics were included. The FASB attempted to include only those characteristics that added something important to the list of qualities and to exclude those that were redundant. Objectivity, feasibility, and substance over form were all suggested as additions to the hierarchy (paragraphs 158-160). Yet none of these were adopted because the Board felt that they did not add anything that was not already expressed in the other characteristics.

This study is the first to assess the usefulness of the qualitative characteristics to accountants in the field. The study determines the extent to which conditions of being operational, comprehensive, and parsimonious are met by the qualitative characteristics of SFAC No. 2.

Previous Attempts to State Relevant Attributes

There have been earlier attempts to describe the characteristics that make financial statements useful. These earlier efforts include those made by the American Accounting Association, the Accounting Principles Board (APB), the AICPA, and the Institute of Chartered Accountants in England and Wales.

Exhibit 2 on the following page summarizes the conclusion of four committees of these bodies. The qualities are listed in the order in which they appear in the original pronouncements. There is a great deal

EXHIBIT 2

CHARACTERISTICS FOR USEFUL
FINANCIAL STATEMENT INFORMATION

ASOBAT

Basic Standards	Guidelines for Communicating Accounting Information
Relevance	Appropriateness to expected use.
Verifiability	Disclosure of significant relationships.
Freedom from bias	Inclusion of environmental informations.
Quantifiability	Uniformity of practice within and among entities. Consistency of practices through time.

APB Statement No. 4	Objectives Report	Corporate Report
Qualitative	Qualitative	Desirable
Objectives	Characteristics	Characteristics
Relevance	Relevance and Materiality	Relevant
Understandability	Form and Substance	Understandable
Verifiability	Reliability	Reliable
Neutrality	Freedom from Bias	Complete
Timeliness	Comparability	Objective
Comparability	Consistency	Timely
Completeness	Understandability	Comparable

of agreement on the qualities, undoubtedly because each group drew on earlier groups' work.

Contribution of the Study

The FASB hoped that by defining the characteristics that make accounting information useful those persons that must make accounting method decisions will make better choices. The Board states, "Those who prepare, audit, and use financial reports, as well as the Financial Accounting Standards Board, must often select or evaluate accounting alternatives. The characteristics or qualities of information discussed in this Statement are the ingredients that make information useful and are the qualities to be sought when accounting choices are made." (SFAC No. 2, page ix, emphasis added.) This study uses experienced, practicing CPAs in an experiment assessing the extent to which the qualitative characteristics of SFAC No. 2 can be used to choose between accounting method alternatives. While no one, including the FASB, suggests that models as sophisticated as those employed in this study should be used every time an accountant must make a choice of accounting method, the results of this study should have important implications to the FASB and the profession.

The results indicated that the qualitative characteristics do have common meaning to the subjects that participated in the study. In addition, the subjects were able to discriminate between the differing characteristics. This indicates that there is no overlap or redundancy in the set, and that each characteristic has a unique meaning. Thus, the Board appears to have chosen unique qualities as their qualitative

characteristics of accounting information. These two conclusions of the study show that, with respect to an understanding of the characteristics, the qualities of accounting information presented in the Statement are operational. Accountants seeking guidance when choosing between alternative methods should be able to compare the competing methods with respect to the quantity of each qualitative characteristic that is contained in each method.

The Board also hoped that the group of qualitative characteristics is a comprehensive one with no omissions of qualities that make accounting information useful. Many other characteristics were considered by the Board before the release of SFAC No. 2, but they were not included because they did not, in the Board's opinion, contribute in any unique way. Yet the predictive accuracy of the models used to assess comprehensiveness indicate that the qualitative characteristics are not perfect predictors of actual choices. If the set of qualitative characteristics is comprehensive one would hope that the predictive accuracy of a model containing them would be high. It appears from this study that there might be characteristics that make accounting information useful in addition to those in SFAC No. 2. If the Board wishes to espouse a complete set of accounting qualities, they should consider some additional ones.

To summarize, within the limitation of this type of study the evidence indicates that the qualitative characteristics are operational and that they comprise a parsimonious set. The results of the study do not, however, indicate strongly that the group of characteristics is a comprehensive one. Thus, if the Board desires to continue to develop the

qualitative characteristics, they should consider the issue of additions to the list.

Summary

This chapter presented a basic framework for the study. Included in the chapter is a discussion of the hierarchy of accounting qualities of SFAC No. 2, a statement of the research problem, a discussion of previous attempts to state characteristics of accounting information, and a discussion of the expected contribution of the study. The remaining chapters will review the literature that is relevant to the methodology of the current study, delineate the specific research methodology, present the data analysis, and state the research conclusions.

CHAPTER II

REVIEW OF THE LITERATURE

The Multitrait-Multimethod Matrix

The multitrait-multimethod matrix (MTMM), proposed by Campbell and Fiske (1959), is a correlation matrix offering four types of correlations that is often used as a validation technique. MTMM has been used in several judgement studies (i.e., in studies where the emphasis is on multi-data-multi-judge situations rather than those of multiple traits and methods). Also, the matrix has been suggested as a useful tool to use in accounting research. These papers are discussed below.

Ashton (1977) suggested the use of MTMM in an accounting context when he discussed the consensus concept of objectivity of accounting measures. With the consensus concept, objectivity is defined as the extent of agreement among measures produced by the application of the same measurement system or measurement rule by different measurers. Ashton says that while the consensus concept has several desirable features relative to other views of objectivity, there are two problems involved with it that have not been adequately addressed. He says that (1) observed objectivity, i.e., the agreement among different measurers (raters) applying the same measurement system, may be falsely inflated by the consensus that is inherent in other combinations of rules and measures. He also says that (2) suggestions for improving objectivity are usually directed completely at the measurement systems and that these suggestions virtually ignore the impact of measures on objectivity.

Ashton suggested that the "multirule-multimeasurer" matrix, an adaptation of the normal MTMM, can be used as a framework for detailed analysis of the objectivity of accounting measures.

Goldberg and Werts (1966) used MTMM to test the reliability of clinical psychologists' judgements that were made from personality test data. Meehl (1968) notes the suitability of MTMM to this type of study (pp. 25-26):

> In order to place any confidence in either of the theoretical constructs we employ in discussing patients, or in the instrument-interpreter combinations we use to assess them, studies of convergent and discriminative validity must be carried out. The Campbell-Fiske multi-trait-multimethod matrix, or the multiperson-multimethod variant of it, should be useful for this purpose.

Goldberg and Werts used four practicing clinical psychologists as subjects in the study. The subjects ranked each of the four sets of 10 neuropsychiatric patients on one of four traits, using one of four different data sources. The intercorrelations among the rankings were pooled across the four samples to form the matrix. The four traits were constructs frequently used in the diagnostic reports of clinical psychologists: (1) social adjustment, (2) ego strength, (3) intelligence, and (4) dependency. The four data sources were (1) the Wechsler-Bellevue intelligence test, (2) the Rorschach projective test, (3) the MMPI personality inventory test, and (4) a vocational history. The results indicated that the judgements of one clinician working from a data source bore no systematic relationship to the judgements of another clinician working from another data source, even though both judges were ranking the same patients on the same trait.

Einhorn (1974) applied MTMM to the area of expert judgement in pathology. Three pathologists independently viewed 193 biopsy slides taken from patients with Hodgkin's disease. For each slide, the pathologist had to give his judgment as to the amount of the nine histological characteristics that were chosen as being important. Except for one characteristic, all of the judgements were to be given on a 6-point scale. Also, a global judgement as to the severity of the disease on a 9-point scale was made by the subjects. And 26 of the slides were repeated twice so that estimates of test-retest reliability could be obtained.

For this study the nine histological characteristics were the traits and the three subjects were the methods. The results indicated that the subjects generally met the three criteria for expert judgement that had been advocated, namely (1) experts should tend to cluster variables in the same way when identifying and organizing cues, (2) expert judgements should be very reliable, show convergent validity and discriminant validity, and be relatively free of judgemental bias when measuring cues, and (3) experts should weight and combine information in similar ways. The subjects, however, did not seem to weight information similarly.

Nystedt, Magnusson, and Aronowitsch (1975) used MTMM to test the ratings of six clinical psychologists. The purpose of the study was to investigate generalizability as the stability, the consensus among judges, and the convergent and discriminant validity of ratings based on projective tests. Three different projective tests were used as a basis for ratings -- Rorschach, Sentence Completion, and TAT. Three variables were used: intelligence, ability to establish contact, and control of

affect and impulses. The author used MTMM to check the stability (the generalizability over time for a judge who makes estimates of the same trait from the same data), consensus (the generalizablity over judges who make estimates of the same trait from the same data), convergence (the generalizability over data sources that are administered at the same time and interpreted by the same judge), and discriminant validity. Their results indicated that the inferential reliability of well trained psychologists is a function of the characteristics of the traits being evaluated, the amount of test information available, and the type of information available.

These studies show how the multitrait-multimethod matrix has been used in the psychology literature to capture and analyze the ratings of subjects. Particular attention was paid to studies where the measurement methods were the subjects, which is the case in this study. Also, the Ashton study shows how the multitrait-multimethod matrix has been used in accounting research.

Linear versus Non-linear Models

Models of human judgement can take on many different forms. Although many researchers have argued that a simple linear process is not appropriate for many cases, many of the models used in recent research employ a linear additive combination rule. For example, Meehl (1954) found that clinical psychologists often contended that they processed information in a configural manner, where their interpretations of particular cues were dependent on the values of other cues. A physician could, likewise, employ a configural judgement strategy. A physician

might believe that body temperature is related to the likelihood that a patient has a particular illness if the patient also has a certain other symptom, symptom X. But if symptom X is absent, then body temperature is irrelevant to the diagnosis (Goldberg, 1968).

Kleinmuntz (1963a, 1963b, 1963c) had a clinical psychologist "think aloud" into a tape recorder as he made judgements about the adjustment of college students on the basis of their Minnesota Multiphasic Personality Inventory (MMPI) profiles. (MMPI results take the form of a personality profile of 11 scores. Each of the scores represents the degree to which a respondent answers questions in a manner similar to patients suffering from a well-defined form of mental illness.) Kleinmuntz used these scores to construct a computer program simulating the clinician's thought processes. The resulting program was a complex sequential (e.g., hierarchical or "tree") representation of the clinician's verbal reports.

Studies such as these start with the presumption that a complex model (e.g., curvilinear, configural, or sequential) is needed. But despite the claims by many experts that the judgement policies are better represented by complex models that are nonlinear, the evidence does not bear this out. Consistently, studies have shown that more complex models provide little, if any, increase in predictive power over what is provided by more simple linear models.

For example, Wiggins and Hoffman (1968) studied the relationship between an individual's actual judgements and the predicted judgements generated by linear and nonlinear models. They employed a nonlinear (quadratic) model that used 11 cues, as in a linear model, plus the 11 squared terms and 55 cross-product terms based on the 11 cues, for a

total of 77 terms. However, for the "most nonlinear" subject in that study, the correlation of the actual values and the predicted values (R_s) of the nonlinear model was only .04 greater than the R_s for the corresponding linear model. Wiggins and Hoffman (1968) state, "The judgements of even the most seemingly configural clinicians can often be estimated with good precision by a linear model." (pp. 76-77).

Results such as these are found in other studies as well. Huber, Sahney, and Ford (1969) studied hospital professionals making evaluations of the quality of patient care offered in various medical wards. They constructed two models, one of which was linear additive and another that was higher-order additive. The study found that the higher-order model had about the same reliability as the linear additive model.

An interactive model was studied using ANOVA by Slovic, Fleissner, and Bauman (1972). Their clients were stockbrokers evaluating companies for investment purposes. They found the interactive additive model to be only slightly superior to the linear additive model. This finding was replicated by Keeley and Doherty (1972).

Klahr (1969) found a linear model to be a reliable predictor of the actual ratings of prospective students made by college admissions officers. Stimson (1969) found that a linear model was a good predictor of fund-allocating decisions of public health officials.

Goldberg (1968, p. 488) pointed to three possible reasons for believing that linear models can effectively represent judgement policies:

> Three possible hypotheses spring to mind to account for these findings: (a) human judges behave in fact remarkably like linear data processors, but somehow they believe that they

> are more complex than they really are; (b) human judges behave in fact in a rather configural fashion, but the power of the linear regression model is so great that it serves to obscure the real configural processes in judgement; (c) human judges behave in fact in a decidely linear fashion on most judgmental tasks (their reports notwithstanding), but for some kinds of tasks they use more complex judgmental processes.

Dawes and Corrigan (1974) found that linear models are robust over deviations from linearity for two primary reasons. One reason is that linear models are good approximations to all multivariate models in which each cue has, or can be rescaled to have, a conditionally monotone relationship with the criterion. This condition requires that higher values of a particular cue imply a higher value on the corresponding criterion, regardless of the value of the other cues. This implies that there is no negative interaction. As an example of conditional monotonicity, assume that a college recruiter for an accounting firm is interviewing many college seniors for entry level accounting positions, and the three most important qualities looked for are (1) GPA, (2) involvement in campus activities, and (3) significant work experience. Students with good scores on these three variables are expected to be better employees than students with low scores. Conditional monotonicity for this example would require that, on average, students with higher GPAs be better employees than those with lower GPAs, regardless of their involvement in campus activities or work experience.

The second reason is that error in the measurement of cues tends to make conditionally monotone functions more linear. Dawes and Corrigan further state, "Such models fit, then, because the contexts in which they are evaluated tend to be conditionally monotone contexts in which there is much error." (Dawes and Corrigan, 1974, p. 99.)

Even in situations that should require nonlinear decisions the linear model worked exceptionally well. For example, Goldberg (1968) made a special effort to try to find some examples of judgemental tasks where configural cue utilization is most likely to be necessary for making accurate inferences. Goldberg hoped that such tasks would be present in situations where true configural judgement processes are present. He consulted experts in the fields of physical medicine, psychiatry, and clinical psychology, with the hopes of finding examples of diagnostic decision cases that were clearly configural in nature. He selected one study from each field for further study.

The study chosen from medicine involved the diagnosis of benign versus malignant gastric ulcers (Hoffman, Slovic, and Rorer, 1968). Physicians assured the researchers that there are seven major signs that can be seen in the X-rays of gastric ulcer patients and that the diagnosis of this problem can be assessed only by the configural (interactive) use of these seven cues. Also, one of the cues can only occur when another is present, so two of the seven cues were combined into one variable with three levels. Nine expert judges (radiologists) diagnosed 192 hypothetical patients by using a seven-point scale ranging from "definitely benign" to "definitely malignant". An ANOVA model was used to analyze the judges' ratings. The model was a 6-factor ANOVA with all possible interactions.

The major finding was that the largest of the 57 possible interactions, for the most configural judge, accounted for only 3% of the variance of the responses. Hoffman, Slovic and Rorer (1968) state:

> On the average, roughly 90% of a judge's reliable variation of response could be predicted by a simple formula combining only individual symptoms in an additive fashion and completely ignoring interactions (pp. 343-3444).
>
> It should be noted that the performance of the judges in this study was rather adequately accounted for in terms of linear effects, in spite of the fact that a deliberate attempt had been made to select a task in which persons would combine cues configurally (p. 347).

The second study involved the decision of whether or not to grant temporary liberty to a psychiatric patient (Rorer, Hoffman, Dickman, and Slovic, 1967). Twenty-four members of the professional staff of a psychiatric hospital rated six variables (such as, "Does the patient have a problem with drinking?") and responded with a yes or no answer. Each judge decided whether 128 presumably real (but actually hypothetical) patients (two administrations of each of the 64 possible cue configurations) should be allowed to leave the hospital for 8 hours on a weekend.

The results were very similar to those in the ulcer study. On the average, less than 2% of the variance of these judgements was associated with the largest interaction term. The percentages ranged from virtually zero to less than 6% across the 24 judges. Thus, the linear aspects of the model provided the most information.

The third study in this group that involved what was thought to be a configural judgement task is a complex one. The beginnings of the study were conducted by Meehl (1959). The study involved the differential diagnosis of neurotic patients from psychotic patients by means of their MMPI profiles. Meehl focused on this diagnostic task on the grounds that "the differences between psychotic and neurotic profiles are considered

in MMPI lore to be highly configural in character, so that an atomistic treatment by combining single scales linearly should theoretically be a very poor substitute for a configural approach." (Meehl, 1959, p. 104). Meehl collected 861 MMPI profiles from seven hospitals and clinics throughout the United States. Each profile was drawn up from the MMPI responses of a psychiatric patient that had been diagnosed by the psychiatric staff as being rather clearly psychotic or neurotic. The sample contained approximately equal numbers from both diagnostic groups. Twenty-nine clinicians attempted to diagnose each of the 861 patients based on the patients' MMPI profiles. The judges rated each profile on an 11-step distribution from least psychotic to most psychotic. After gathering these data and performing only some preliminary analysis Meehl passed the data on to Goldberg. Goldberg (1965) investigated the validity of the clinicians' judgements (not of interest here) and passed the data on to Wiggins and Hoffman, who studied the cognitive processes of the judges.

Wiggins and Hoffman (1968) compared three models as representations of the cognitive processes of each of the 29 judges. The three models were (1) a linear model, (2) a quadratic model, which added all squared terms to the first model and (3) a "sign" model.

The most overwhelming finding from this study was how much of the variance in the clinicians' judgements could be represented by the linear model. For example, if the judgement correlations produced by the linear model are compared with those produced by each of the two configural models, the results show that the linear model was equal to or superior to the quadratic model for 23 of the 29 judges. And for the most

configural judge the quadratic model produced a correlation with his judgement that was only .03 greater than that of the linear model. Also, the linear model was equal or superior to the sign model for 17 of the judges. For the case of the single most configural judge the sign model produced a correlation that was only .04 greater than the linear model. Wiggins and Hoffman add:

> A note of caution should be added to the discussion of differences between linear and configural judges. Though the differences appear reliable, their magnitude is not large; the judgements of even the most seemingly configural clinicians can often be estimated with good precision by a linear model. (Wiggins and Hoffman, 1968, pp. 76-77).

Human judgement models can take many different forms. Many researchers have argued that a simple linear process cannot adequately capture human judgement processes. However, the studies discussed in this section show that this is not necessarily true. In fact, these studies show that more complex models provide little, if any, increase in predictive power over what is obtained by those that are linear. As a result, a linear predictive model is used in this study.

The Joyce, Libby, and Sunder Study

Joyce, Libby, and Sunder (JLS) conducted the only known study which tested the usefulness of SFAC No. 2. They tested the ability of SFAC No. 2 to facilitate standard setting, i.e., they tested the usefulness of SFAC No 2 at the first level that accounting choices are made. JLS questioned twenty-six past members of the FASB and APB. These subjects were chosen because of their experience in dealing with accounting policy choices and their familiarity with earlier qualitative criteria.

Three conditions were deemed necessary by JLS If SFAC No. 2 is to facilitate standard setting. The three conditions adopted by JLS were presented by the FASB in SFAC No. 2. The conditions are that the qualitative characteristics should be operational, comprehensive, and parsimonious. The conditions of being operational and parsimonious were tested within the multitrait-multimethod matrix. JLS stated that they would consider the set of qualitative characteristics a parsimonious one if discriminant validity was evident. The characteristics would be considered operational if both discriminant validity and convergent validity were present. Comprehensiveness was tested by using a linear model to predict policy makers' accounting choices with weights assigned to the qualitative characteristics. JLS stated that a model employing the qualitative characteristics should be able to predict a subject's choice of accounting method if the set of qualitative characteristics is comprehensive, i.e., if no important characteristics have been omitted. Details of these techniques are explained later.

Their results for convergent validity (C, the correlation between different policy makers' judgements on the same qualitative characteristics), across issues, indicated that only verifiability and cost have some common meaning to the policy makers. There were 3,575 observations of C and only those two characteristics (verifiability and cost) had correlations that averaged above 0.5. This suggests that these two characteristics have some common meaning to the policy makers. The mean value of C for representational faithfulness was the lowest (0.099), indicating that this characteristic has no common meaning to the policy makers. The average values for the other eight characteristics were

between 0.138 and 0.307, which JLS interpreted as showing that these characteristics have no common meaning to policy makers.

Convergent validity for each accounting issue was also examined across the eleven qualitative characteristics. Only on one issue (accounting for inflation, mean = 0.42) did the authors conclude that there was any common meaning assigned to the qualitative characteristics. All other issues had correlations that were no greater than 0.296.

Discriminant validity measures how well truly different things are considered to be different. If discriminant validity is present then the correlations of measures of different qualitative characteristics should be lower than the correlations of measures of the same characteristic. Discriminant validity was analyzed with two types of comparisons. The first test involved comparing the correlations of <u>different</u> policy makers on the <u>same</u> traits (C) with the correlations of <u>different</u> policy makers' ratings of <u>different</u> traits (H). For discriminant validity, C should be greater than H. In the JLS study there were 71,500 possible C-H comparisons. In 40,325, or 56.4% of them, C was greater than the corresponding value of H, but only cost and verifiability met the C greater than H test over 70% of the time (71.6% and 72.2% respectively).

Their second test of discriminant validity involved comparing the C values with the correlation of the same policy maker's ratings of different characteristics (M). For discriminant validity, C should be greater than M. In only 36.7% of the 71,500 C-M comparisons were the values of C greater than those of M. Only for cost and verifiability was the condition met more than half the time (60.5% and 56.4% respectively). JLS state that these results indicate that the distinctions between the

definitions of the characteristics are smaller than the differences between policy makers' judgements.

JLS tested for comprehensiveness using the following linear model:

$$A_{ik} = \sum_{j=1}^{N} w_{jk} \cdot d_{ijk}, \quad i = 1, 2, \ldots, 8,$$

where A_{ik} is the preference score of policy maker K for policy issue i, d_{ijk} is the difference in the amount of qualitative characteristic between the alternative accounting methods on policy issue i as measured by policy maker k, and w_{jk} is the weight computed by using the rank sum method. The predictive accuracy of each subject's model was measured by absolute hit rates for the accounting choices and by correlations with a nine-point strength of preference measure.

The model had a very high predictive ability, with a mean hit rate of 89.4% and a mean correlation of 0.84. The hit rate refers to the percentage of the time that the model correctly predicted the actual accounting choice of a subject. The model also perfectly predicted the accounting method choices of 15 of the 26 participants. Thus, the list of qualitative characteristics does appear to be comprehensive.

The JLS study is an important one in that it was the first research to look at the usefulness of SFAC No. 2. However, there are some problems. JLS looked at eleven qualitative characteristics from SFAC No. 2. They did not, however, give any consideration to the fact that the characteristics are in a hierarchy, with some of the characteristics being necessarily more important than others. For example,

verifiability, neutrality, and representational faithfulness are all ingredients of reliability. Reliability is a primary quality that gives accounting information decision usefulness, while the ingredients are qualities that contribute to reliability. Similarly, predictive value, feedback value, and timeliness are ingredients of relevance. Nothing was done by JLS to include the effects of this hierarchical structure in their study.

Also, JLS did not statistically test the results of the multitrait-multimethod matrix. JLS limited their analysis to simply a description of the comparisons used for convergent and discriminant validity.

Another possible problem with the study involved their choice of the eight accounting issues that were used. The accounting treatments for issues such as oil and gas exploration costs and development stage enterprises are not topics that most accountants deal with on a frequent basis. Perhaps other accounting issues would have been better.

The JLS study looked only at accounting policy matters. Since policy makers make up a very important group of potential users of the qualitative characteristics this is an important group to study. But the usefulness of the characteristics in SFAC No. 2 to accountants in the field is also an area that needs to be addressed.

Summary

This chapter presented a view of the literature relevant to the current study. The first section of the chapter discussed studies that utilized the multitrait-multimethod matrix, with special emphasis on

those studies where the measurement methods in the matrix were represented by people, which is the case in this study. The second section presented studies relating to the use of linear, as opposed to nonlinear, models. The results of these studies show that linear models are good predictive models, even in situations where the cognitive processes were thought to be nonlinear. The final section of the chapter was devoted to the Joyce, Libby, and Sunder study (1982). JLS tested the usefulness of SFAC No. 2 to accounting policy makers.

CHAPTER III

METHODOLOGY

To facilitate the description of the research methodology, this chapter is divided into six sections. The first section discusses the subjects used in the study and why this population was chosen. The experimental task and the materials used are discussed in the second section. The third section discusses the multitrait-multimethod matrix and how it is used in the study. In the fourth section, the two analysis of variance procedures used to analyze the data in the multitrait-multimethod matrix and determine the extent to which the qualitative characteristics comprise an operational and parsimonious set of qualities are discussed. The last two sections of this chapter discuss the linear predictive model and the weights that are used in the model. The method described in these final two sections is used to determine if the set of qualitative characteristics is a comprehensive one.

The Subjects

The subjects in the study are partners and managers in the Washington, D.C. offices of Big Eight* accounting firms. This population

*The Big Eight accounting firms are Arthur Andersen and Company, Arthur Young and Company, Coopers and Lybrand, Deloitte, Haskins and Sells, Ernst and Whinney, Peat Marwick Mitchell and Company, Price Waterhouse, and Touche Ross and Company.

should help ensure that the subjects have an understanding of the qualitative characteristics in SFAC No. 2 and have experience in dealing with accounting method decisions.

The population was chosen because accounting standards are set by the accounting profession. Practicing CPAs should have a better understanding of how accounting choices are made than would the various groups of users of financial information. Further, the qualitative characteristics in SFAC No. 2 need to be operational, at the very minimum, at the level of practicing CPAs. If they have little or no meaning to accountants, the FASB can hardly expect them to be useful to other groups.

Also, the Board does expect SFAC No. 2 to be useful to accountants. In paragraph 11, the Board states that the qualities of useful accounting information should provide guidance when choosing between accounting treatments. Users of financial information might also benefit from SFAC No. 2. However, the main value of the Statement to them will be in increasing their understanding of the usefulness and limitations of the financial information that is provided (SFAC No. 2, paragraph 11).

Three questionnaires were hand delivered to each of the accounting firms' Washington offices in Spring, 1985. Assurance was given beforehand that they would be completed by partners and/or managers in the office and promptly returned by mail. Addressed, postage-paid envelopes and a cover letter explaining the study were provided along with the questionnaires.

The Task

The subjects were provided with a packet made up of a cover letter, a brief description of the eight accounting issues used in the study, and the actual questionnaire. The eight accounting issues used in the study are:

1. Early extinguishment of debt
2. Research and development costs
3. Supplemental inflation accounting data for industrial firms
4. Marketable equity securities
5. Investment tax credit
6. Business combinations
7. In-substance defeasance of debt
8. Statement of changes in financial position

These eight accounting issues include six from the Joyce, Libby, and Sunder (JLS) study plus two others. Development stage enterprises and oil and gas exploration costs from the JLS study were replaced with the statement of changes in financial position and in-substance defeasance of debt. The two issues from JLS were not used in this study. They were changed because they are issues that are not dealt with frequently by many accountants. While few issues confront a CPA on a frequent basis, these two seemed much more esoteric than the others. With more companies moving toward a cash basis statement of changes this appears to be a timely issue worth investigating. With the recent release of FASB Statement No. 76, defeasance of debt is a controversial issue worth examining. A complete copy of the questionnaire and related materials appears in the appendix.

The descriptions of the eight accounting issues in the appendix show two alternatives for each issue. In cases where the APB or FASB had selected a single reporting method, that method is shown as one of the

two alternatives. In cases where two reporting methods are allowed, both of these were included (the investment tax credit, inflation accounting, and the statement of changes in financial position).

The questionnaire asked the subjects to perform three tasks:

1. To choose, from the two possibilities shown, the reporting alternative that has more of the stated qualitative characteristic. Subjects also indicate how much more of the characteristic the method of accounting has, or state that neither alternative is distinguishable by the stated characteristic. For an illustration of this see Task 1 of the questionnaire in the appendix. The first page of the Task 1 section asks the subject about reliability as it relates to each of the eight accounting issues. The following pages of the Task 1 section ask the subject about the eight other qualitative characteristics as they relate to the eight accounting issues. Data obtained from this task were used in the multitrait-multimethod matrix and a linear predictive model, both of which are discussed in a later section of this chapter.
2. To perform pairwise comparisons on the qualitative characteristics within the context of the hierarchy in SFAC No. 2. These comparisons were broken down into three sets, which is shown in the Task 2 section of the appendix. First, the subject is asked to compare relevance and reliability with respect to decision usefulness. Then the subject is asked to compare predictive value, feedback value, timeliness, and comparability with respect to relevance. The third page of Task 2 asks the subject to compare verifiability, neutrality, representational faithfulness, and comparability with respect

to reliability. All of these comparisons are structured within the framework of the analytic hierarchy process (Saaty, 1980). The data gathered from Task 2 were used to compute weights for the linear predictive model that was used to test for comprehensiveness. Structuring the pairwise comparisons in this way allows the weights to be constructed within the hierarchy of SFAC No. 2. The relative importance of the ingredients of the primary qualities is ascertained, as is the importance of the primary decision-specific qualities. The only aspect of the hierarchy not modeled precisely as intended in the Statement is comparability. Comparability is not actually an ingredient of relevance and reliability. Rather, it is a quality that interacts with relevance and reliability to add decision usefulness. Within the analytic hierarchy process the best way to incorporate comparability is to treat it as a component of both relevance and reliability. Despite this one very minor shortcoming, this procedure captures the importance of the hierarchy as written by the FASB in SFAC No. 2.

3. To choose, for each of the eight accounting issues, the preferred accounting method (or indicate no preference). The subject was then asked to specify his/her strength of preference on a four-point scale. Materials used in this part of the experiment are shown in the Task 3 section of the appendix.

Additionally, a debriefing questionnaire at the end of the experiment materials questioned the subjects about the clarity of the instructions, time taken completing the questionnaire, and other information regarding the clarity of the qualitative characteristics themselves.

In this section the respondents were also asked if they had read SFAC No. 2.

Several versions of the questionnaire were created by randomly choosing the order of the qualitative characteristics and the accounting issues and the questionnaires were randomly distributed to the subjects. Parts of the questionnaire were adapted from Joyce, Libby, and Sunder (1982) and from Harper (1984), with their permission.

Multitrait-Multimethod Matrix

The multitrait-multimethod matrix (MTMM), proposed by Campbell and Fiske (1959), is a correlation matrix offering four types of correlation coefficients that is often used as a validation technique. In this study it is used to determine if the set of qualitative characteristics is operational and parsimonious.

The correlations in the multitrait-multimethod matrix are computed by gathering values for traits that have been obtained by using different measurement methods. In this study the traits in the normal MTMM framework are represented by the nine qualitative characteristics and the measurement methods are the twenty-one subjects. Exhibit 3 shows a layout of the matrix. For illustrative purposes in the exhibit only three qualitative characteristics (nine are tested) and three subjects (twenty-one are tested) are shown. Exhibit 4 shows the makeup of each of the correlations in the matrix.

The four correlations offered by MTMM are:

1. C - the validity diagonals, also referred to as the monotrait-heteromethod values. These correlations measure

EXHIBIT 3

EXAMPLE OF A MULTITRAIT-MULTIMETHOD MATRIX

	Subject 1			Subject 2			Subject 3		
	Comp.	Reliab.	Relev.	Comp.	Reliab.	Relev.	Comp.	Reliab.	Relev.
Subject 1									
Comparability	R	M	M	C	H	H	C	H	H
Reliability		R	M	H	C	H	H	C	H
Relevance			R	H	H	C	H	H	C
Subject 2									
Comparability				R	M	M	C	H	H
Reliability					R	M	H	C	H
Relevance						R	H	H	C
Subject 3									
Comparability							R	M	M
Reliability								R	M
Relevance									R

Adapted from Joyce, Libby, and Sunder (1982)

EXHIBIT 4

MTMM CORRELATIONS

Accounting Methods	Subject 1		Subject 2	
	Relevance	Reliability	Relevance	Reliability
Early Debt	6	5	4	4
R&D	5	4	5	5
Inflation Acct.	3	7	5	3
Mkt. Sec.	4	3	4	4
ITC	2	5	3	5
Bus. Comb.	3	4	2	6
Debt Defeasance	5	1	1	7
Statement of Changes	4	2	6	2

C

C

M

M

H

H

Correlation	Subject	Qual. Char.
C	Different	Same
M	Same	Different
H	Different	Different

Adapted from Joyce, Libby, and Sunder (1982)

convergent validity. These values are the correlations of like qualitative characteristics obtained from different subjects.

2. H - the heterotrait-monomethod triangles. These values measure the correlation between one subject's measure of two different qualitative characteristics.

3. H - the heterotrait-heteromethod triangles. These values are the correlations between the ratings obtained from two subjects on two different qualitative characteristics.

4. R - the reliability diagonals, also referred to as the monotrait-monomethod values. These values represent the correlations of the same subject's ratings of the same qualitative characteristics at two different times. These values are often useful in test-retest situations, but are not used in this study because all of the measurements are made in the same time period.

These correlations will be measured using Pearson's product-moment correlations. Pearson's is a parametric correlation coefficient that measures the association of two variables. A Pearson's product-moment correlation, r_{xy}, is given by:

$$r_{xy} = \Sigma (x - \bar{x})(y - \bar{y}) / \sqrt{(\Sigma(x - \bar{x})^2 \Sigma(y - \bar{y})^2)}$$

where x and y are the sample means of x and y.

As previously mentioned, MTMM is used to determine if the set of qualitative characteristics is an operational and parsimonious one. The ability of the matrix to aid in these determinations can be illustrated as follows.

Suppose two subjects were asked to rate, using seven-point scales, the relevance and reliability of the accounting information resulting from different possible accounting methods for marketable equity securities. The methods would include market and lower of cost or market on a portfolio basis. Within the context of this study, the two subjects are the measurement methods and the qualitative characteristics are the traits.

If the subjects' ratings of relevance and reliability are to be deemed valid, two conditions should be met. First convergent validity should be present. That is, there should be strong agreement between each subject's ratings of the two characteristics. This correlation is denoted as C in Exhibits 3 and 4. If there is limited agreement between the ratings of like qualitative characteristics by different subjects, the measurements are not likely to be operational. Convergent validity is indicated in this way if large values for the C coefficients are found.

Second, discriminant validity is necessary, since similar things should be rated similarly and different things should be rated differently. There are two major criteria for discriminant validity. First, there should be greater agreement between the ratings of different subjects on one characteristic (e.g., relevance) than the agreement between one subject's rating of two different characteristics (e.g., relevance and reliability). This correlation of ratings of different qualitative characteristics by a subject is shown in the exhibits as M. The usual comparison for this test of discriminant validity involves comparing the C values with the M values in the heterotrait-monomethod

triangles. The C values should be larger than the M values if discriminant validity is present. The second criterion is that more agreement should occur between different subjects' ratings of one characteristic (C) than the agreement between different subjects' rating of a different characteristic (H). The usual comparison for this second test of discriminant validity involves comparing the C values with the H values lying in the same column and row in the heterotrait-heteromethod triangles. Again, the C values should be larger if discriminant validity is present. To the extent that these criteria are met, the ratings are said to represent distinct concepts and possess discriminant validity.

If convergent validity and discriminant validity are not present, the qualitative characteristics will not be considered operational. If discriminant validity is not present, the qualitative characteristics do not represent distinct concepts. Therefore, the set of qualitative characteristics is not a parsimonious one.

The extent to which convergent and discriminant validity are present is determined in the study as follows. The data obtained from Task 1 is used to compute the MTMM correlations by first transforming them into a seven-point scale. If a subject stated that the treating of early extinguishment of debt as ordinary income was more relevant than treating it as an extraordinary item, and also said that treating early extinguishment as ordinary income was much more relevant than treating it as an extraordinary item, the subject would be scored as 1. If, on the other hand, the subject said that treatment as an extraordinary item was much more relevant than treatment as ordinary income, the score would be 7. If the subject said that relevance does not distinguish between the

two alternatives, the score is 4. Thus, the seven possible scores are 1, 2, 3, 4, 5, 6, and 7. For example, in Exhibit 4, the "6" at the top of the first column for subject 1 indicates subject 1's belief that treatment of early extinguishment of debt as an extraordinary item is moderately more relevant than treatment as ordinary income would be. The "5" directly below it indicates that expensing research and development costs is slightly more relevant to the subject than is capitalization.

Data constructed in this manner yielded 72 observations for each subject from Task 1, e.g., one observation for each of the eight accounting issues for each of the nine qualitative characteristics. These observations are used in the computation of the C, M, and H correlations in the MTMM. These numbers are also used in the linear predictive model, discussed in a later section of this chapter.

Two Analysis of Variance Techniques

Two separate analysis of variance techniques are used to statistically test for the presence of convergent and discriminant validity. The first ANOVA technique used in this study was proposed by Kavanagh, MacKinney, and Wolins (1971). The analysis is useful for any MTMM analysis of convergent and discriminant validity, but it is extremely useful when working with a large data set, which is the case in this study. Further, this technique statistically tests for convergent and discriminant validity, whereas many MTMM analyses rely strictly upon the comparisons of the correlation coefficients just discussed.

In this ANOVA technique the total sums of squares is partitioned into a sums of squares associated with issue, a sums of squares

associated with issue * trait interaction, a sums of squares associated with the issue * subject interaction, and an error sums of squares. Convergent validity is indicated in this analysis by the main effect for issue, as it represents the degree to which similar scores are assigned to issues by different measurement methods (subjects). The issue * trait interaction would indicate the amount of discriminant validity since this represents the degree to which an issue's trait patterns are alike across instruments and are different from the patterns of other issues. The issue * subject interaction indicates the amount of method bias, or "halo", that is present. The computations used to compute the results of the ANOVA are shown in Exhibit 5.

In this study the interest is on four sources of variation. These are: (a) the issue variance, which indicates the overall amount of agreement (convergent validity) on issues over subjects and qualitative characteristics; (b) issue * trait variance, which indicates the degree of rated discriminations on the qualitative characteristics by issue (discriminant validity); (c) issue * subject variance, which indicates the amount of method bias in the rating situation; and (d) error. This ANOVA statistically tests the judgements from Task 1 of the questionnaire for convergent and discriminant validity.

This analysis of variance is very useful for situations where the multitrait-multimethod matrix is very large. However, there are two problems that could potentially exist in interpreting the results. The first problem stems from the way convergent validity is measured. Convergent validity in this ANOVA is expressed as a significant main effect for issue. Generally, the F-test statistic used to test for the

EXHIBIT 5

COMPUTATIONS FOR KAVANAGH ANOVA

Source	df	SS	Expected MS
Issue	N-1	$Nmn\ (r_o)$	$\sigma^2_E + nm\sigma^2_I$
Issue * Trait	(N-1)(n-1)	$Nnm\ (r_{wt}-r_o)$	$\sigma^2_E + m\sigma_{I\ X\ T}$
Issue * Subject	(N-1)(m-1)	$Nnm\ (r_{ws}-r_o)$	$\sigma^2_E = n\sigma_{I\ X\ S}$
Error	(N-1)(n-1)(m-1)	$Nnm\ (1-r_{wt}-r_{ws}-r_o)$	σ^2_E

Note:

r_o = the average correlation of all the elements in the matrix.

r_{wt} = the average correlation between subjects within traits. This represents the average of the correlations that are between subjects within qualitative characteristics, i.e., the average of all the correlations in the validity diagonals, the C coefficients.

r_{ws} = the average correlation between qualitative characteristics within subjects. This represents the average of the correlations in the heterotrait-monomethod triangles, i.e., the M coefficients.

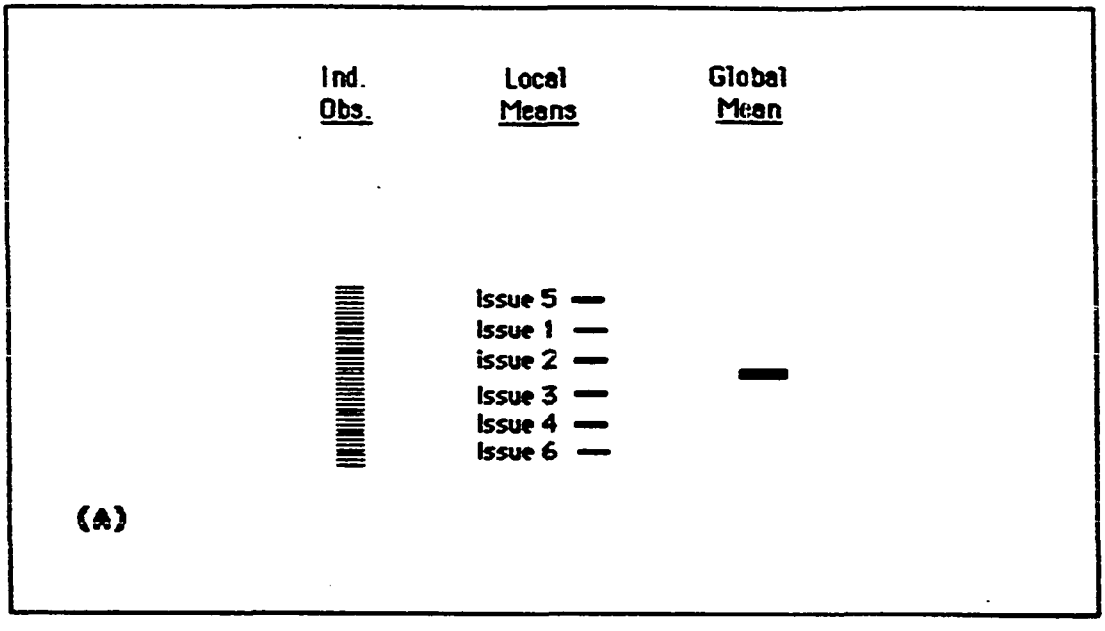
N = the number of issues, 8. n = the number of qualitative characteristics, 9. m = the number of subjects, 21.

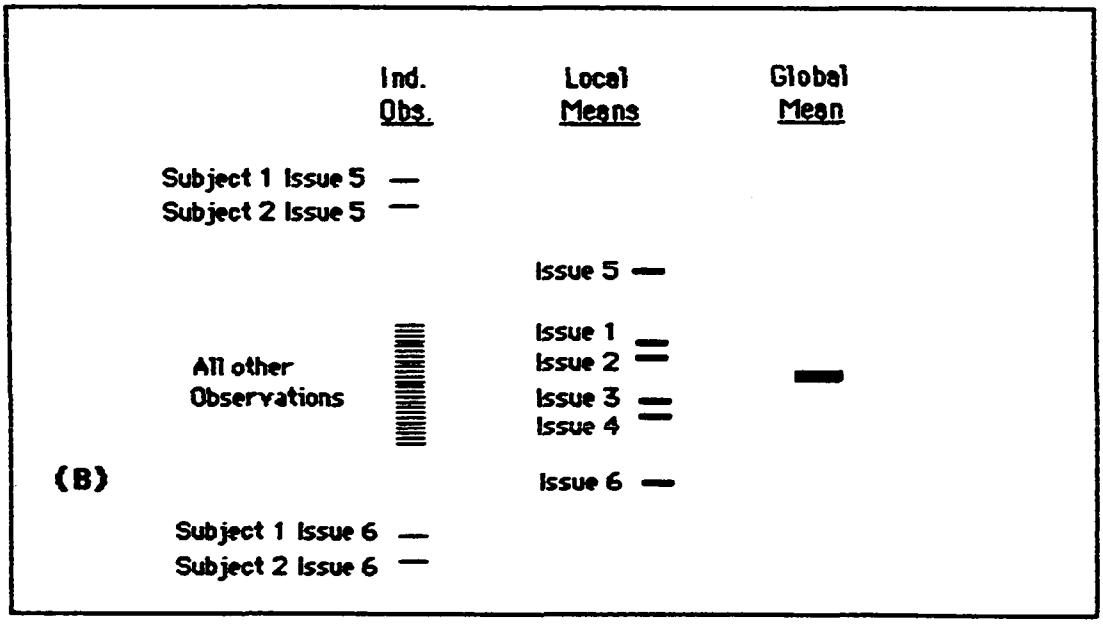
significance of the main effect for issue is computed by dividing the between issues sums of squares by the error sums of squares. The between issues sums of squares considers the differences between the local means (the means for each issue) and the global mean (the mean of the local means). The error sums of squares considers the differences between the individual observations of an issue and the local means after the variation due to the other additive and multiplicative effects have been removed. To reject the hypothesis of equal means and conclude that there is a significant main effect of issue the distance between the local means for issue and the global mean must be large, relative to the distance of the individual observations around the local means. Stated another way, if convergent validity is present, the error sums of squares is relatively small, because the individual observations are clustered close to the local means, relative to the local means around the global mean. But the interpretation of the results is rarely this straightforward. There is often a confounding of the results, which can take one of two forms.

Consider an oversimplified case where there are six issues, six subjects, and two factors. Exhibit 6 (A) shows the global mean, the local means (one for each of the six issues), and the individual observations that make up the local means. The between issue sums of squares could be large, relative to the error sums of squares, and a main effect of issue (convergent validity) would be indicated. The Kavanagh ANOVA assumes this type of situation when they let the main effect for issue represent convergent validity. But this is not necessarily the case if, in addition to a main effect for issue, there is also a significant issue

EXHIBIT 6

GRAPHIC REPRESENTATION OF
KAVANAGH ANOVA PROCEDURE





* subject interaction. This issue * subject interaction, often known as "halo" or method bias, confounds the interpretation of the issue main effect if it is significant. If both the issue main effect and the issue * subject interaction are significant, the main effect of issue may not indicate true convergent validity.

This type of confounding occurs when the F statistic for the main effect of issue is significant, but the difference in means may be due to the fact that the pattern of issue means is different for the different subjects. Exhibit 6 (B) shows the global mean, the local means (one for each of the six issues), and the individual observations that make up the local means. In this case, we could have a significant main effect of issue, i.e., a significant F statistic due to a large between sums of squares relative to the error of sums of squares, as explained earlier. Notice, however, that the local means for issues 5 and 6 are quite a bit farther away from the global mean than are the local means for issues 1 through 4. As can be seen from the Exhibit, this is due simply to the way that subjects 1 and 2 rate issues 5 and 6. Although the scores of subjects 1 and 2 cause the local means for issues 5 and 6 to be different, this is not true convergent validity. The difference in means in this hypothetical case is due to the difference in the way the subjects scored issues 5 and 6. This is a simplistic example, but it shows how method bias, or "halo," could occur.

The second way the results could be confounded with this ANOVA is if there really is agreement on the issues by the subjects but there is no difference in the local means of the issues. Convergent validity means

that there is agreement on the issues, but this would not show up if the means were equal, even if all of the subjects' scores were similar.

The second problem with Kavanagh is the manner in which the ANOVA is fashioned. In going from the multitrait-multimethod matrix to the factorial model a model is set up that has only one observation per cell. This means that there is no true error term. There is no way to control for the effect of subject, or, in other words, the effect of random error. Kavanagh uses the three way interaction term, issue * subject * characteristic, as the error term. This is the best estimate of an error term available with this model, but it leaves open the question of how one should interpret the results since this is not a true error term.

A repeated measures ANOVA can be used in this study to separate the effects of method bias from the main effect of issue. This technique was not possible in the Kavanagh study, because there was no way they could determine the extent to which their main effect for manager (which is analogous to the main effect for issue in this study) was attributable to convergent validity or to method bias. This is because Kavanagh had three different types of raters (subjects), and each rater was a different individual. In other words, all experimental materials were not rated by every subject. Kavanagh had three types of raters: peers, superiors, and self. The subjects were rating managers, which are analogous to the issues in this study. Every rater (subject) did not rate every manager (issue). For example, Kavanagh could not have manager 1 give a self rating on manager 2. For the current study, however, every subject rated every issue. Therefore, a repeated measures design can be used to augment the Kavanagh results.

A good discussion of how a repeated measures design can be useful is provided by Winer, p. 261, (1971):

> In experimental work in the behavioral sciences the elements forming the statistical population are frequently people. Because of the large differences in experience and background, the responses of people to the same experimental treatment may show relatively large variability. In many cases, much of this variability is due to differences between people existing prior to the experiment. If this latter source of variability can be separated from treatment effects and experimental error, then the sensitivity of the experiment may be increased. If this source of variability cannot be estimated, it remains part of the uncontrolled sources of the variability and is thus automatically part of the experimental error.
>
> One of the primary purposes of experiments in which the same subject is observed under each of the treatments is to provide a control on differences between subjects. In this type of experiment, treatment effects for subject i are measured relative to the average response made by subject i on all treatments. In this sense, each subject serves as his own control -- responses of individual subjects to the treatments are measured in terms of deviations about a point which measures the average responsiveness of that individual subject. Hence variability due to difference in the average responsiveness of the subject is eliminated from the experimental error "if an additive model is appropriate."

In this study every subject rates every issue. Because of this, a repeated measure design can be used to supplement the analysis that is provided by the Kavanagh ANOVA. The repeated measures ANOVA controls for the effect of the subject. That is, it removes the between subject error, which is the difference due to the individual subjects. In cases where there is both a significant main effect of issue and a significant issue * subject interaction in the Kavanagh ANOVA, the repeated measures ANOVA will provide much better evidence as to the existence of convergent validity or the lack of it. The sources of variation, degrees of

freedom, and the formulae for the expected mean squares are shown in Exhibit 7.

Linear Predictive Model

A linear predictive model is used to determine if the set of qualitative characteristics comprise a comprehensive set of qualities that make accounting information useful. SFAC No. 2 does not specify how accountants can transform their measures of qualitative characteristics into accounting choice decisions. The Statement does, however, indicate that tradeoffs may have to be made among the qualitative characteristics (FASB, 1980, paragraphs 31, 41, 57, 90, and 133). This suggests that a compensatory linear predictive model can represent accountants' decisions. Compensatory models can be used in cases where all of the alternatives can be described in terms of single utility numbers that are commensurate with each other. These models are often referred to as compensatory because a low value on one attribute can be compensated for by a high value on another attribute (Green and Wind, p. 43). An example from Libby (1981) shows how the process of trading off attributes is integral to most day-to-day decisions.

> When choosing an automobile, we would all like to find a car which is luxurious and inexpensive or fast and fuel-efficient. However, we usually must trade some luxury for cost savings and some speed for fuel economy. Indeed, most would agree that determining the proper trade-offs in a compensatory model is the most difficult activity in decision making. In light of this, it is ironic that linear models are frequently referred to as "simple" because of their statistical features. (Libby, 1981, p. 44).

Data for the model will come from the subjects' responses to all three tasks on the questionnaire. The model used here to predict the

EXHIBIT 7

REPEATED MEASURES
ANALYSIS OF VARIANCE

Source of Variation	df	Expected MS
Between Subjects		
Error	(n-1)	$\sigma_E^2 + qr\sigma_s^2$
Within Subjects		
Trait	(q-1)	$\sigma_E^2 + r\sigma_{TS}^2 + nr\sigma_T^2$
Trait * Subject	(n-1)(q-1)	$\sigma_E + r\sigma_{TS}^2$
Issue	(r-1)	$\sigma_E^2 + q\sigma_{IS}^2 + nq\sigma_I^2$
Issue * Subject	(n-1)(r-1)	$\sigma_E^2 + q\sigma_{IS}^2$
Issue * Trait	(q-1)(r-1)	$\sigma_E^2 + \sigma_{TIS}^2 + n\sigma_{TI}^2$
Issue * Trait * Subject	(n-1)(q-1)(r-1)	$\sigma_E^2 + \sigma_{TIS}^2$

Note:
n = the subjects, 21.
q = the traits (qualitative characteristics), 9.
r = the accounting issues, 8.

Source: Modified from Winer (1980), p. 540.

subjects' choices of accounting method is shown in Exhibit 8. The weights are created using the analytic hierarchy process procedure from the data obtained in Task 2. Each page of pairwise comparisons in Task 2 contains the ingredients for a dominance matrix. The perceived relative importance of each "ingredient of the primary qualities" and each "secondary and interactive quality" with respect to its "primary decision-specific quality" and the perceived relative importance of each "primary decision-specific quality" to overall decision usefulness are represented by the normalized eigenvectors for the maximum eigenvalues of the respective matrices.

This model implies that an accountant behaves as if he/she used the following procedure for each of the accounting alternatives. First, a score is assigned to each of the alternative's N qualitative characteristics (comparability, reliability, etc.). These d_{ijk} scores are then multiplied by their relative weights, and the sum of these products becomes a measure of an accountant's preference for a particular accounting method. The accountant then chooses the accounting method based on the A_{ik} score.

Two models are constructed for each subject and for each accounting issue. One model is constructed using the two "primary decision-specific qualities" (relevance and reliability) and the second is constructed using the other seven qualitative characteristics tested in the study. Two models are constructed because of the way the weights are computed by the analytic hierarchy process procedure. The predictive ability and accuracy is measured by comparing each subject's A_{ik} values with his/her choice of accounting method for each issue. For each predictive model a

EXHIBIT 8

THE LINEAR PREDICTIVE MODEL

$$A_{ik} = \sum_{j=1}^{N} w_{jk} \cdot d_{ijk}$$

where

A_{ik} is the score of the subject k for accounting issue i obtained from the model. $1 \leq A_{ik} \leq 7$.

d_{ijk} is the difference in the amount of the qualitative characteristic j between the alternative accounting methods on accounting issue i as measured by subject k. These are the scores computed for use in MTMM from data obtained from task 1.

w_{jk} are the weights, obtained from the analytic hierarchy process questions in task 2.

N is the number of qualitative characteristics (nine).

value of less than 4 for A_{ik} would indicate that the subject should prefer the first alternative (e.g., ordinary income for the early extinguishment of debt issue) while a value greater than 4 would indicate preference for the second alternative. A value of 4, $\pm$ 1, would indicate that the subject had no preference of accounting method for a given issue. Because of the weighting scheme it is very unlikely that a subject's A_{ik} score would be exactly 4 even if the subject has no preference of accounting method for an issue. Therefore, a cushion of $\pm$ 1 around the value of 4 provides a reasonable range that should allow for a true measure of a subject's preference if the subject indeed has no preference of accounting method.

The actual accounting method preferences of the subjects were obtained in Task 3 of the questionnaire. The subjects were asked to indicate their actual choice of accounting method (without reference to the qualitative characteristics) or indicate that they had no preference for each of the accounting issues. The subjects were also asked to indicate their strength of preference on a four point scale which used the terms very mild, mild, strong, and very strong. These answers from Task 3 are converted into a nine point scale in much the same way the data from Task 1 were converted into a seven point scale. Extreme preferences for a choice were given the more extreme values on the nine point scale. For example, a "very strong" preference for the first alternative resulted in a score of 1, while a "very strong" preference of the second alternative resulted in a score of 9. If a subject indicated no preference of accounting method for an accounting issue, a 5 was assigned.

Exhibit 9 provides an example of how the determination of a hit or miss is calculated using actual values from one of the subjects for the early extinguishment of debt issue. In Exhibit 9 the sums (A_{ik} scores) indicate that the subject should prefer the second alternative, which for early extinguishment of debt is extraordinary item treatment. This is indicated because the A_{ik} scores are 6.93 and 7.0, both of which are greater than 4. If the scores had been less than 4 this would indicate that the subject should have a preference for the first alternative, which for early extinguishment of debt is ordinary item treatment. The actual preference for this subject for this accounting issue (obtained from Task 3 in this subject's questionnaire) is the second alternative, i.e., extraordinary item treatment. Thus, the predictive models for this subject had two hits, i.e., the models correctly predicted the subject's choice of accounting method. These predictive models are used to determine if the set of qualitative characteristics is a comprehensive one. If no significant characteristics have been omitted the percentage of actual hits should be high.

In addition to the hit rates just discussed, correlations are computed between the subjects' actual accounting method preferences (expressed in a nine point scale) and a the predictive scores of the linear models (expressed in a seven point scale). Two correlations are computed for each subject. One correlates the actual preferences with the scores obtained from the seven characteristic models, while the second correlations the actual preferences with the scores from the two characteristic model. These correlations should add to the results of the hit rates just discussed.

EXHIBIT 9

EXAMPLE OF PREDICTIVE MODEL FOR
EARLY EXTINGUISHMENT OF DEBT ISSUE

	Qualitative Characteristic	AHP Weight	Task 1 Score	Product
Seven characteristic model	Neutrality	0.084	7	0.59
	Comparability	0.129	7	0.90
	Verifiability	0.107	7	0.75
	Representational faithfulness	0.235	7	1.65
	Predictive value	0.287	7	2.01
	Feedback value	0.134	7	0.94
	Timeliness	0.024	4	0.10
	Sum	1.000		6.93
Two characteristic model	Relevance	0.5	7	3.5
	Reliability	0.5	7	3.5
	Sum	1.0		7.0

Weighting

As mentioned in the previous section, the weights used in the predictive model are computed using the analytic hierarchy process (AHP) (Saaty, 1980). The weighting scheme is structured so that the "ingredients of primary qualities" and the "secondary and interactive qualities" in the hierarchy of SFAC No. 2 are elements of the proper "primary decision-specific quality". This is done so that the predictive model is consistent with the hierarchy expressed in the Statement. The specific hierarchical structure used in this study is shown in Exhibit 10.

The goal in this section of the research was to identify weightings that expressed the importance the subjects placed on each of the nine qualitative characteristics. The hierarchy was structured so that there were three levels, labeled levels 0-2 from the top of the hierarchy to the bottom. Level 0 represented the goal, decision usefulness. Level 1 was represented by the "primary decision-specific qualities," relevance and reliability. At this level respondents are asked to express the relative importance of relevance and reliability with respect to decision usefulness. Level 2 was represented by the "ingredients of primary qualities". Respondents are asked to express the relative importance of each of those qualities with respect to the next higher level in the hierarchy, which is Level 1. There are two sets of comparisons to be made at this level. One group of comparisons involves the qualities that are ingredients of relevance, while the other group involved the qualities that are ingredients of reliability. In the hierarchy of SFAC No. 2, predictive value, feedback value, and timeliness are the ingredients of relevance, while verifiability, neutrality, and

EXHIBIT 10

HIERARCHICAL STRUCTURE FOR THE
ANALYTIC HIERARCHY PROCESS ANALYSIS

LEVEL 0	GOAL DECISION USEFULNESS	
LEVEL 1	Relevance	Reliability
LEVEL 2	Predictive value Feedback value Timeliness Comparability	Verifiability Neutrality Representational faithfulness Comparability

Predictive value, feedback value, timeliness and comparability are ingredients of relevance.

Verifiability, neutrality, representational faithfulness and comparability are ingredients of reliability.

Relevance and reliability are the primary decision-specific qualities.

representational faithfulness are the ingredients of reliability. The comparisons made at this level included those six characteristics plus comparability. Comparability was added to both groups because it is a quality that interacts with both relevance and reliability.

The actual comparisons were made by the subjects using the scale suggested by Saaty. This scale is shown in Exhibit 11. The subjects are asked to indicate the relative importance of each qualitative characteristic with respect to the appropriate characteristic in the next higher level of the hierarchy. This means that the subjects are to indicate the relative importance of the qualities in Level 1 with respect to level 0, and the relative importance of the qualities of Level 2 with respect to Level 1. This is shown in the Task 2 section of the questionnaire, which is reproduced in the appendix. The weights computed using AHP express the importance each respondent gives to each of the qualitative characteristics. Two sets of weights are computed. One set represents the weights chosen for the two "primary decision-specific qualities". The other set comprises the weightings for the other characteristics. AHP works as follows (from Saaty, 1980).

Let the elements $C_1,\ldots,C_n$ represent some level in a hierarchy. AHP calculates the weights of influence, $w_1,\ldots,w_n$, on some element in the next level. Denote as a_{ij} the number indicating the strength of C_i when compared with C_j. The matrix of these numbers a_{ij} is denoted A, or $A=(a_{ij})$. This matrix is a reciprocal one, i.e., $a_{ij}=1/a_{ij}$. This implies that $a_{ii}=1$ and that it is necessary to obtain responses for only half of

EXHIBIT 11

ANALYTIC HIERARCHY PROCESS

SCALE USED IN TASK 2

Intensity of Importance	Definition	Explanation
1	Equal importance	Two activities or times contribute equally to the objective
3	Weak importance of one over another	Experience and judgment slightly favor one activity or item over another
5	Essential or strong importance	Experience and judgment strongly favor one activity or item over another
7	Demonstrated importance	An activity or item is strongly favored and its dominance is demonstrated in practice
9	Absolute importance	The evidence favoring one activity or item over another is of the highest possible order of affirmation
2,4,6,8	Intermediate values between the two adjacent judgments	When compromise is needed

Source: Saaty, 1980.

the elements in the matrix [A] for paired comparisons of n items where:

$$[A] = \begin{bmatrix} a_{11} & \cdots & a_{1n} \\ \vdots & & \\ a_{n1} & \cdots & a_{nn} \end{bmatrix} = \begin{bmatrix} 1 & a_{12} & \cdots & a_{1n} \\ 1/a_{12} & 1 & \cdots & a_{2n} \\ \vdots & & & \\ 1/a_{1n} & 1/a_{12} & \cdots & 1 \end{bmatrix}$$

AHP performs a procedure analogous to primary components analysis. In this way AHP computes weights that are represented by the eigenvector associated with the largest eigenvalue. These weights are normalized so that they will sum to 1. Each eigenvector element, then, represents the scaled importance the respondent places on the various qualitative characteristics.

In this study the analytic hierarchy process is used to construct weights for each qualitative characteristic in the hierarchy of SFAC No. 2 AHP computes three sets of weights for each subject. One set provides the weightings of the relative importance a subject places on relevance and reliability with respect to decision usefulness. Another set provides the relative importance that a subject places on the characteristics that contribute to reliability. As previously mentioned, comparability is included in this study as an ingredient of both relevance and reliability. Each of these three sets of weights is normalized so that the weights sum to 1 for each set. The normalized weights providing the relative importance of relevance and reliability with respect to decision usefulness are then used in the two characteristic linear predictive model discussed in an earlier section of

this chapter. The weights for the seven characteristic model are obtained by taking the weight for each of the other seven qualitative characteristics and multiplying it by the weight for either relevance or reliability (whichever is appropriate) from the next higher level of the hierarchy. This is done so that the weights for the other seven characteristics will sum to 1. Also, since comparability is included as an ingredient of both relevance and reliability, the weight used for comparability in the linear predictive model is the sum of the weight for comparability with respect to relevance and the weight for comparability with respect to reliability.

An example of this can be seen using the data presented in Exhibit 9, which was shown earlier. The weights for relevance and reliability (0.5 in each case) represent the normalized weights expressing the importance placed by the subject on those characteristics with respect to decision usefulness. These weights are used in the two characteristic linear predictive model. The weight for neutrality (0.084) is computed by taking the normalized weight for neutrality with respect to reliability (neutrality is an ingredient of reliability) and multiplying it by the weight for reliability. This is done for each of the characteristics comprising the seven characteristic model. And since comparability is included as in ingredient of both relevance and reliability, its weight (0.129 in Exhibit 9) is the sum of (a) the weight for comparability with respect to relevance and (b) the weight for comparability with respect to reliability.

In addition to the weightings themselves, an inconsistency index is calculated for each set of judgements. As an example of consistency,

consider the case of three football teams, A, B, and C. If team A defeats team B and team B defeats team C, consistency dictates that team A should defeat team C. But it is not impossible to consider the case where team C could defeat team A, although this is inconsistent. Inconsistency occurs frequently in real world situations. A measure of inconsistency can be computed within AHP to measure the inconsistency present in a set of judgements. An inconsistency ratio of zero indicates perfect consistency. An inconsistency ratio of 0.10 or less has been suggested (Saaty, 1980) as a tolerable level of inconsistency. All AHP calculations in this study were calculated using the Expert Choice software program (Decision Support Software, Inc., 1985) on the IBM PC.

Summary

This chapter described the specific research methodology employed in the study. The first section discussed the subjects in the study and why they were chosen. The second section described the experimental materials and the task. The third section discussed the multitrait-multimethod matrix, which is used as a framework for assessing operationality and parsimoniousness. Two analysis of variance models that statistically tested the data in the matrix were discussed in the fourth section. The final two sections discussed the linear predictive model used to test for comprehensiveness and the weights that were utilized. The data analysis and results of the study are reported in the next chapter.

CHAPTER IV

ANALYSIS

This chapter presents the results of the application of the research methodology discussed in Chapter III. The first section of the chapter discusses the subjects that participated in the study. Next, the results of the two analyses of variance procedures used to assess the extent to which the set of qualitative characteristics are operational and parsimonious are discussed. Subsequent sections report the results of the tests for comprehensiveness, the subjects' actual accounting method preferences, and demographic information provided by the subjects.

The Sample

Three questionnaires were hand delivered in Spring 1985 to each office of the Big Eight firms in Washington, D.C. Assurance had been given beforehand that they would be completed by partners and/or managers in the office and promptly returned by mail. Of the twenty-four questionnaires delivered, twenty-one were returned. All twenty-one were correctly completed and were usable. They represented three questionnaires each from seven of the eight firms that had originally agreed to participate in the study. The remaining firm was contacted repeatedly to attempt to obtain the questionnaires sent to them. After several weeks the firm explained that they were unable to find managers or partners that were willing to spend time completing the questionnaire. This

situation occurred even though each firm gave assurance that the questionnaires sent them would be returned promptly. Thus, the data from twenty-one of the twenty-four questionnaires (a response rate of 87.5 percent) were used in the analysis.

Of these twenty-one respondents, fifteen were managers in their firms and six were partners. All were auditors. The time taken to complete the questionnaire ranged from a minimum of 15 minutes to a maximum of 90. The mean time taken by the subjects was 48 minutes, and the median was 45 minutes.

The Two Analysis of Variance Models

The Kavanagh analysis of variance was run on the data comprising the multitrait-multimethod matrix using the formulas shown in Exhibit 5 of the previous chapter. The averages of the certain specific groups of correlations that were needed to compute the mean squares and sums of squares are shown below. All calculations for the Kavanagh analysis of variance were computed using the Statistical Analysis System (SAS).

Description	Notation	Average Correlation
Average of all elements in the matrix	r_o	0.115133
Average of the C coefficients	r_{wt}	0.163666
Average of the M coefficients	r_{ws}	0.3207

The ANOVA results are shown in Exhibit 12. All of the F statistics are significant. The main effect of issue indicates, at first glance,

EXHIBIT 12

ANALYSIS OF VARIANCE FOR THE

MULTITRAIT-MULTIMETHOD CORRELATIONS

Source	df	SS	MS	F	Tail Prob.
Issue	7	166.32	23.76	11.2015	0.001
Issue * Trait	56	81.65	1.458	1.53886	0.01
Issue * Subject	140	319.03	2.2788	2.6072	0.001
Error	1120	945	0.84375		

that convergent validity is present. Convergent validity indicates that there is agreement among the subjects with respect to the nine qualitative characteristics. The issue * trait interaction indicates discriminant validity. This means that the subjects rate different qualitative characteristics differently. The issue * subject interaction term is method bias, or "halo" effect. This is the measure of the amount of difference due to the method (subject). The fact that this term is significant makes interpretation of the issue main effect difficult. Had there not been a significant issue * subject interaction, one could conclude that there is convergent validity. However, as explained in the previous chapter, the differences in means that caused the main effect of issue to be significant could be due to method bias, not convergent validity. Because of this confounding of the results, the repeated measures ANOVA discussed in the last chapter was also run. This procedure controls for the effects of individual differences in subjects so that a true test of convergent validity can be obtained. All calculations for the repeated measures analysis of variance were made with the biomedical programs (BMDP).

An ANOVA table showing the results of the repeated measures analysis are shown in Exhibit 13. In this ANOVA the between subjects error, or individual error, is controlled for. The main effect of trait, which is not significant, indicates that there is no difference among the means for trait. This has no meaning to this study. The main effect of issue is significant at the 0.001 level. This is a true measure of convergent validity. It represents the main effect of issue after the effects of subject have been controlled for. Because this effect is not

EXHIBIT 13

ANALYSIS OF VARIANCE
WITH REPEATED MEASURES

Source	SS	df	MS	F	Tail Prob.
Between Subjects					
Error	189.38624	20	9.46931		
Within Subjects					
Trait	12.64021	8	1.58003	0.79	0.6117
Trait * Subject	319.80423	160	1.99878		
Issue	559.57407	7	79.93915	8.05	0.001
Issue * Subject (Halo)	1389.70370	140	9.92646		
Trait * Issue	367.49735	56	6.56245	3.68	0.001
Trait * Issue * Subject	1998.72487	1120	1.78458		

contaminated with possible method bias, it provides a much better measure of convergent validity than does the Kavanagh procedure.

The trait * issue interaction indicates that there is discriminant validity. In terms of the ANOVA this means that there is a different pattern of issue means among the traits.

The evidence for convergent validity indicates that the qualitative characteristics do have common meaning to the accountants in the study. If the characteristics did not have any common meaning to the accountants they could hardly be considered useful. The evidence for discriminant validity indicates that the different characteristics are perceived by the subjects as representing distinct concepts. These two conditions should be considered necessary if the qualitative characteristics are to have any chance of being operational. Since discriminant validity in the context of this study means that there is no perceived overlap in the qualitative characteristics, the set of characteristics in SFAC No. 2 appears to contain no redundancies. Thus, there is evidence that the set of characteristics is a parsimonious one.

Joyce, Libby, and Sunder, in their study testing the usefulness of the qualitative characteristics with policy makers, were unable to report much convergent or discriminant validity. In situations where there are only eight observations for each trait it is not likely that significant C correlations will be evident in the "eyeball" analysis they performed. Nor is it likely that the predicted differences in the C-M or C-H comparisons would appear. But when the analysis is conducted within the framework of an analysis of variance the random effects (the error) are removed and the true differences as they exist are able to be seen. If

JLS had used the ANOVA techniques utilized in this study they might have had different results.

Possible evidence of this can be seen when comparing the C coefficients by trait of the JLS study with the corresponding coefficients in this study. The C coefficients by trait for this study are shown in Exhibit 14. The mean coefficients in the JLS study ranged from a maximum of 0.522 down to a minimum of 0.099, with the overall mean of the coefficients being 0.257. JLS state, on page 662, "Only verifiability and cost averaged above .5, suggesting that these two characteristics have some common meaning to the policy makers. However, the other nine do not and one, representational faithfulness, has no common meaning at all."

In this study the mean coefficients ranged from a high 0.318 down to a low of 0.055, with the overall mean being 0.164. Yet evidence for convergent validity is present in this study. While it is impossible to draw any definite conclusions from this, there is a good possibility that JLS would have been able to report convergent validity in their results had they used an analysis of variance.

As an additional comparison with the JLS study, the traditional C-H and C-M comparisons were made for selected subjects. A group of four subjects were chosen from the twenty-one that participated in the study. Two subjects were chosen at random from those fifteen whose inconsistency indexes from the analytic hierarchy process calculations were less than 0.2, and two subjects were chosen at random from those five that had inconsistency indexes greater than 0.2. Then one subject was chosen at random from each group of two subjects already chosen. (Inconsistency indexes are discussed later in this chapter.) The traditional MTMM

EXHIBIT 14

CONVERGENT VALIDITY
(C COEFFICIENTS)
BY TRAIT

Qualitative Characteristic	Mean	Std. Deviation	Min. Value	Max. Value	Std. Error of Mean
Relevance	0.318	0.136	0.025	0.489	0.030
Reliability	0.174	0.123	-0.018	0.381	0.027
Neutrality	0.055	0.140	-0.241	0.252	0.031
Comparability	0.166	0.144	-0.104	0.376	0.032
Verifiability	0.255	0.220	-0.317	0.454	0.048
Representational faithfulness	0.086	0.138	-0.223	0.258	0.030
Predictive value	0.136	0.136	-0.191	0.296	0.030
Feedback value	0.152	0.153	-0.142	0.355	0.033
Timeliness	0.132	0.189	-0.288	0.368	0.041
Overall mean	0.164				

analysis was conducted on each of the three groups of subjects just discussed. The subjects to be included in this analysis were chosen in this way so that both consistent and inconsistent subjects would be included. In this traditional MTMM analysis, the tests for discriminant validity involve comparing each C coefficient with its corresponding H and M coefficients. The C values should be larger than the corresponding values of H and M if discriminant validity is present.

The results of these comparisons are shown in Exhibit 15. These results compare favorably with those of JLS. JLS reported that C values were greater than the appropriate values of H in 56.4 percent of the comparisons, when examined across all of the qualitative characteristics. In this study the Cs were greater than the corresponding H values in 64.4 percent of the cases. With respect to the second test of discriminant validity, JLS reported that the C values were greater than the corresponding values of M 36.7 percent of the time. Again, the results from the comparisons made in this study were not this low. The C values were larger than the corresponding values of M 50.2 percent of the time. However, the C-H and C-M comparisons were not made for all subjects in this study. As previously discussed, this study utilized two analysis of variance procedures to test for convergent and discriminant validity. An "eyeball" analysis, such as the one just discussed, does not statistically test the data nor does it control for the error inherently present in any data of this type.

EXHIBIT 15

DISCRIMINANT VALIDITY BY
CHARACTERISTIC USING THE
TRADITIONAL MTMM ANALYSIS
FOR SELECTED SUBJECTS

Characteristic	C>H*	C>M*
Relevance	91.7	81.3
Reliability	81.3	6.46
Neutrality	60.4	25.0
Comparability	60.4	54.2
Verifiability	75.0	64.6
Representational faithfulness	47.9	33.3
Predictive value	60.4	45.8
Feedback value	62.5	58.3
Timeliness	39.6	25.0
Over All Characteristics	64.4	50.2

*In the traditional MTMM analysis the C coefficients should be larger than both the H and M values if discriminant validity is present. The values shown above indicate the percentage of times this occurred.

Weights

As discussed in the previous chapter, the weights used in the predictive model were computed using the analytical hierarchy process (AHP) (Saaty, 1980). These computations of the AHP weights were computed using the Expert Choice software program, and they were computed within the framework of the hierarchy expressed in SFAC No. 2.

The goal in this section of the research was to identify weightings that expressed the importance the subjects placed on each of the nine qualitative characteristics. These weights appear in Exhibit 16. The weights for each set may not always sum to 1 due to rounding.

The results shown in the exhibit include all twenty-one subjects. As can be seen from the means of the weights, relevance is given a slightly higher weight than is reliability, 0.556 versus 0.444. With regard to the other group characteristics, comparability, at 0.222, is given the most weight. Timeliness and verifiability were second and third, respectively, with weightings of 0.173 and 0.169. They were followed, in order, by predictive value, feedback value, representational faithfulness, and neutrality. These values represent the averages, over all of the subjects, of the importance placed on each of the qualitative characteristics. These weights were then used in the linear predictive model used to test for comprehensiveness, which is discussed next.

EXHIBIT 16

RELATIVE IMPORTANCE WEIGHTS OF THE QUALITATIVE CHARACTERISTICS USING AHP

	Qualitative Char.	SUBJECT 1	SUBJECT 2	SUBJECT 3	SUBJECT 4	SUBJECT 5	SUBJECT 6	SUBJECT 7	SUBJECT 8
7 Char. Model	Neutrality	0.479	0.084	0.036	0.021	0.037	0.058	0.069	0.078
	Comparability	0.281	0.129	0.215	0.174	0.188	0.394	0.185	0.201
	Verifiability	0.080	0.107	0.590	0.063	0.275	0.385	0.040	0.063
	Repr. Faith.	0.072	0.235	0.058	0.063	0.065	0.116	0.023	0.011
	Pred. Value	0.054	0.287	0.010	0.564	0.037	0.029	0.210	0.329
	Feedback Value	0.028	0.134	0.004	0.076	0.124	0.007	0.179	0.239
	Timeliness	0.007	0.024	0.087	0.041	0.275	0.010	0.295	0.080
2 Char. Model	Relevance	0.125	0.500	0.125	0.833	0.500	0.111	0.750	0.833
	Reliability	0.875	0.500	0.875	0.167	0.500	0.889	0.250	0.167

	Qualitative Char.	SUBJECT 9	SUBJECT 10	SUBJECT 11	SUBJECT 12	SUBJECT 13	SUBJECT 14	SUBJECT 15	SUBJECT 16
7 Char. Model	Neutrality	0.031	0.084	0.040	0.022	0.114	0.034	0.010	0.229
	Comparability	0.220	0.087	0.052	0.349	0.324	0.374	0.224	0.345
	Verifiability	0.640	0.093	0.157	0.203	0.143	0.099	0.054	0.315
	Repr. Faith.	0.052	0.285	0.038	0.051	0.329	0.019	0.082	0.060
	Pred. Value	0.010	0.261	0.193	0.125	0.047	0.139	0.087	0.026
	Feedback Value	0.004	0.131	0.086	0.125	0.033	0.094	0.066	0.008
	Timeliness	0.043	0.058	0.432	0.125	0.009	0.241	0.477	0.017
2 Char. Model	Relevance	0.100	0.500	0.750	0.500	0.167	0.833	0.833	0.167
	Reliability	0.900	0.500	0.250	0.500	0.833	0.167	0.167	0.833

EXHIBIT 16
(continued)

RELATIVE IMPORTANCE WEIGHTS OF THE QUALITATIVE CHARACTERISTICS USING AHP

	Qualitative Char.	SUBJECT 17	SUBJECT 18	SUBJECT 19	SUBJECT 20	SUBJECT 21	MEAN
7 Char. Model	Neutrality	0.034	0.011	0.007	0.075	0.044	0.076
	Comparability	0.219	0.254	0.184	0.213	0.059	0.222
	Verifiability	0.089	0.041	0.025	0.075	0.020	0.169
	Repr. Faith.	0.031	0.041	0.013	0.075	0.094	0.086
	Pred. Value	0.222	0.089	0.259	0.188	0.181	0.159
	Feedback Value	0.089	0.525	0.058	0.188	0.181	0.113
	Timeliness	0.316	0.038	0.454	0.188	0.422	0.173
2 Char. Model	Relevance	0.667	0.900	0.900	0.750	0.833	0.556
	Reliability	0.333	0.100	0.100	0.250	0.167	0.444

Test for Comprehensiveness

The major test for comprehensiveness involved the use of a linear model to predict the subjects' choice of accounting method for each of the eight accounting issues. The model, as discussed in Chapter III, is given below.

$$A_{ik} = \sum_{j=1}^{N} w_{jk} \cdot d_{ijk}$$

where

A_{ik} is the score of the subject k for accounting issue i obtained from the model. $1 \leq A_{ik} \leq 7$.

d_{ijk} is the difference in the amount of the qualitative characteristic j between the alternative accounting methods on accounting issue i as measured by subject k. These are the scores computed for use in MTMM from data obtained from task 1.

w_{jk} are the weights, obtained from the analytic hierarchy process questions in task 2.

N is the number of qualitative characteristics (nine).

If the set of qualitative characteristics in SFAC No. 2 is a comprehensive one, i.e., there are no significant characteristics omitted, the qualitative characteristics should be able to predict a subject's actual choice of accounting method for a given issue.

In Task 1 of the questionnaire the subjects were provided with two alternative accounting treatments for the eight accounting issues. Each issue was one that had been previously ruled on by the Accounting Principles Board, the Financial Accounting Standards Board, or both. Each issue was presented to the subjects nine times, i.e., once for each of the nine qualitative characteristics. The subjects were asked to choose which accounting treatment possessed more of the stated qualitative characteristic, or indicate that the qualitative characteristic did not distinguish between the alternative accounting treatments. If a subject indicated that a choice of accounting method possessed more of the stated characteristic he/she was asked to indicate how much more of the qualitative characteristic the chosen method possessed. This was indicated by the subject using the terms slightly more, moderately more, or much more. This is shown in Task 1 of the questionnaire in the appendix. This information was then converted into a seven-point scale of positive integers ranging from 1 to 7. If for any issue and qualitative characteristic, the subject stated that the first choice of accounting treatment for an issue contained more of the qualitative characteristic a score of 1, 2, or 3 was assigned. If the subject chose "much more" in the second part of the question, he/she was assigned a score of 1. If "moderately more" was chosen, a score of 2 was given. And if "slightly more" was the choice of the subject, 3 was the assigned score. If, on the other hand, a subject stated that the second choice of accounting treatment contained more of the stated qualitative characteristic, the resulting score was either a 5, 6, or 7. A choice in the second part of the question of "slightly more" yielded a score of 5, while "moderately

more" and "much more" resulted in scores of 6 and 7, respectively. If a subject indicated that the qualitative characteristic did not distinguish between the two accounting methods, the score assigned was 4. Scores constructed in this way yielded eight scores for each of the nine qualitative characteristics, or stated another way, nine scores for each accounting issue. This represents seventy-two scores from Task 1 for each subject.

These Task 1 scores were then used, along with the AHP weights, in two linear predictive models to predict the subjects' choice of accounting method. The Task 1 scores for each accounting issue and qualitative characteristics were multiplied by the corresponding AHP weight for each qualitative characteristic. These products were then summed, yielding predictive scores for two applications of the model for each subject. Relevance and reliability were used to get one predictive score while the remaining seven characteristics were used to get a second predictive score. This resulted in sixteen predictive scores for each subject, i.e., two scores for each of the eight accounting issues. These scores, naturally, could range in value between 1 and 7.

The predictive scores from the predictive model were then compared with the choices made by the subjects in Task 3. A score from the predictive model of less than 4 indicates that the subject should prefer the first alternative for an issue, while a score of greater than 4 indicates that the subject should prefer the second alternative. A predictive score of 4 indicates no preference by the subject for a particular method. However, since it is unlikely that a subject's predictive score would be exactly 4, some cushion was allowed here. If a

subject's predictive score was within ± 1 of 4, this was interpreted as being close enough to 4 for purposes of determining if the predictive model correctly predicted the choice of accounting method. This applied only to situations in which the subject indicated no preference for an accounting method in Task 3.

Comparisons of the predictive scores with the subjects' actual choice of accounting method were measured by the number of times the model correctly predicted the subjects' choice. These comparisons were made sixteen times for each subject, i.e., once for each accounting issue for both the model using relevance and reliability and for the model using the other seven qualitative characteristics.

The results of these comparisons appear in Exhibit 17. There are eight major rows of data in the exhibit, one for each accounting issue. The line labeled respondent's choice for each issue indicates the actual preference of the subject for that particular accounting issue, expressed in terms of the nine point scale discussed earlier. Below these actual preferences are the predictive models' choices and an indication of a "hit" or "miss" for both the two and seven characteristic models. The lower portion of each page of the exhibit presents summary data relating to the overall hits and hit ratios for each subject across issues, and the last page of the exhibit presents the results across subjects for each accounting issue. When examined over accounting issues for each subject, the overall hit ratios for the two characteristic model ranged from a low of 25 percent (for subjects 14 and 20) to a high of 100 percent (for subject 16), with the overall average being 64.2 percent. In other words, the two characteristic model correctly predicted the

EXHIBIT 17

HIT RATES
USING ALL SUBJECTS

		SUBJECT 1	SUBJECT 2	SUBJECT 3	SUBJECT 4	SUBJECT 5	SUBJECT 6	SUBJECT 7
Early Debt	Resp.'s Choice	9	9	9	8	7	3	9
	Model's Choice-7 char.	6.32	6.93	5.09	6.85	4.26	4.78	5.8
	Hit (1) or Miss (0)	1	1	1	1	1	0	1
	Model's Choice-2 char.	6	7	4.375	7	6	4.222	5.75
	Hit (1) or Miss (0)	1	1	1	1	1	0	1
R&D	Resp.'s Choice	2	8	8	3	9	7	8
	Model's Choice-7 char.	4.51	5.25	6.05	3.82	6.21	4.69	4.42
	Hit (1) or Miss (0)	0	1	1	1	1	1	1
	Model's Choice-2 char.	5.5	5.5	4	2.833	7	6.556	2.25
	Hit (1) or Miss (0)	0	1	0	1	1	1	0
Inflation Acct.	Resp.'s Choice	3	7	5	7	7	2	3
	Model's Choice-7 char.	3.93	4.07	2.74	3.38	4.72	2.23	4.54
	Hit (1) or Miss (0)	1	1	0	0	1	1	0
	Model's Choice-2 char.	4.25	4	5	5.833	5.5	2.333	5
	Hit (1) or Miss (0)	0	0	0	1	1	1	0
Mktble. Sec.	Resp.'s Choice	2	3	9	7	8	8	2
	Model's Choice-7 char.	3.05	3.22	6.27	4.74	2.96	6.37	2.82
	Hit (1) or Miss (0)	1	1	1	1	0	1	1
	Model's Choice-2 char.	3.625	2.5	4.125	1.334	2	4.667	2.25
	Hit (1) or Miss (0)	1	1	1	0	0	1	1
ITC	Resp.'s Choice	3	7	7	3	6	7	6
	Model's Choice-7 char.	4.5	5.01	4.34	1.9	4.54	5.4	4.08
	Hit (1) or Miss (0)	0	1	1	1	1	1	1
	Model's Choice-2 char.	5.5	5	6.75	2.167	5.5	4	3.5
	Hit (1) or Miss (0)	0	1	1	1	1	0	0
Business Comb.	Resp.'s Choice	3	2	7	8	7	5	5
	Model's Choice-7 char.	3.07	1.6	4.64	4.16	5.61	4.83	4.4
	Hit (1) or Miss (0)	1	1	1	1	1	1	1
	Model's Choice-2 char.	3.625	2.5	5.125	5.499	6	3.889	4
	Hit (1) or Miss (0)	1	1	1	1	1	1	1
Debt Defeasance	Resp.'s Choice	5	3	5	2	3	2	5
	Model's Choice-7 char.	3.65	2.49	4.77	1.23	3.43	1.62	2.78
	Hit (1) or Miss (0)	1	1	1	1	1	1	0
	Model's Choice-2 char.	5.5	2.5	4.25	2	3	2	3
	Hit (1) or Miss (0)	0	1	1	1	1	1	0
SL of Changes	Resp.'s Choice	8	8	3	7	5	3	8
	Model's Choice-7 char.	4.67	6.61	3.51	3.82	4	3.08	4.82
	Hit (1) or Miss (0)	1	1	1	0	1	1	1
	Model's Choice-2 char.	4.25	7	3.875	5.666	4	3.889	6
	Hit (1) or Miss (0)	1	1	1	1	1	1	1
		SUBJECT 1	SUBJECT 2	SUBJECT 3	SUBJECT 4	SUBJECT 5	SUBJECT 6	SUBJECT 7
Hits by respondent-	7 characteristics	6	8	7	6	7	7	6
	Percent	75.0%	100.0%	87.5%	75.0%	87.5%	87.5%	75.0%
Hits by respondent-	2 characteristics	4	7	6	7	7	6	4
	Percent	50.0%	87.5%	75.0%	87.5%	87.5%	75.0%	50.0%

EXHIBIT 17
(continued)

HIT RATES
USING ALL SUBJECTS

		SUBJECT 8	SUBJECT 9	SUBJECT 10	SUBJECT 11	SUBJECT 12	SUBJECT 13	SUBJECT 14
Early Debt	Resp.'s Choice	3	8	7	7	5	3	9
	Model's Choice-7 char.	4.71	4.03	4.22	4.33	5.5	4.64	5.85
	Hit (1) or Miss (0)	0	1	1	1	0	0	1
	Model's Choice-2 char.	5.167	4	4	4.75	4	4	4
	Hit (1) or Miss (0)	0	0	0	1	1	0	0
R&D	Resp.'s Choice	3	7	7	7	8	8	8
	Model's Choice-7 char.	3.65	3.28	5.12	4.04	3.73	8.41	3.32
	Hit (1) or Miss (0)	1	0	1	1	0	1	0
	Model's Choice-2 char.	3.666	3.1	4.5	5	5.5	6	2.835
	Hit (1) or Miss (0)	1	0	1	1	1	1	0
Inflation Acct.	Resp.'s Choice	8	6	8	5	8	2	5
	Model's Choice-7 char.	3.83	2.73	4.35	3.52	4.39	3.01	4.5
	Hit (1) or Miss (0)	0	0	1	1	1	1	1
	Model's Choice-2 char.	6	3.2	4.5	4.75	5.5	1.668	5.499
	Hit (1) or Miss (0)	1	0	1	1	1	1	0
Mktble. Sec.	Resp.'s Choice	8	1	8	2	2	9	2
	Model's Choice-7 char.	3.29	4.14	3.46	3.1	2.33	5.17	1.94
	Hit (1) or Miss (0)	0	0	0	1	1	1	1
	Model's Choice-2 char.	2.833	1.1	4	2.25	2	5.499	4.167
	Hit (1) or Miss (0)	0	1	0	1	1	1	0
ITC	Resp.'s Choice	8	3	7	7	5	9	6
	Model's Choice-7 char.	4.19	4.64	4.56	4.83	3.81	4.14	5.49
	Hit (1) or Miss (0)	1	0	1	1	1	1	1
	Model's Choice-2 char.	4	4	4	4.75	5	5.666	2.334
	Hit (1) or Miss (0)	0	0	0	1	0	1	0
Business Comb.	Resp.'s Choice	7	1	2	2	3	8	8
	Model's Choice-7 char.	3.55	5.59	2.47	3.66	3.98	4.5	3.66
	Hit (1) or Miss (0)	0	0	1	1	1	1	0
	Model's Choice-2 char.	1.501	1.2	3	2.25	3	4.833	2.668
	Hit (1) or Miss (0)	0	1	1	1	1	1	0
Debt Defeasance	Resp.'s Choice	2	8	3	7	3	9	2
	Model's Choice-7 char.	4.76	4.74	3.6	3.59	2.43	6.97	1.98
	Hit (1) or Miss (0)	0	1	1	0	1	1	1
	Model's Choice-2 char.	3.334	5	4	3.25	2.5	7	3
	Hit (1) or Miss (0)	1	1	0	0	1	1	1
St. of Changes	Resp.'s Choice	4	3	8	8	5	7	2
	Model's Choice-7 char.	3.74	2.72	4.52	4.35	4.4	4.03	2.19
	Hit (1) or Miss (0)	1	1	1	1	1	1	1
	Model's Choice-2 char.	3.833	4	4	5.5	4.5	4	2
	Hit (1) or Miss (0)	1	0	0	1	1	0	1
		SUBJECT 8	SUBJECT 9	SUBJECT 10	SUBJECT 11	SUBJECT 12	SUBJECT 13	SUBJECT 14
Hits by respondent-	7 characteristics	3	3	7	7	6	7	6
	Percent	37.5%	37.5%	87.5%	87.5%	75.0%	87.5%	75.0%
Hits by respondent-	2 characteristics	4	3	3	7	7	6	2
	Percent	50.0%	37.5%	37.5%	87.5%	87.5%	75.0%	25.0%

EXHIBIT 17
(continued)

HIT RATES
USING ALL SUBJECTS

		SUBJECT 15	SUBJECT 16	SUBJECT 17	SUBJECT 18	SUBJECT 19	SUBJECT 20	SUBJECT 21
Early Debt	Resp.'s Choice	7	9	6	9	8	5	7
	Model's Choice-7 char.	4.38	6	4.82	6.8	5.64	5.56	4.82
	Hit (1) or Miss (0)	1	1	1	1	1	0	1
	Model's Choice-2 char.	5.499	7	3.666	6.9	7	6	6
	Hit (1) or Miss (0)	1	1	0	1	1	0	1
R&D	Resp.'s Choice	9	8	8	8	8	7	8
	Model's Choice-7 char.	4.07	5.9	6.21	6.3	5.15	2.74	5.66
	Hit (1) or Miss (0)	1	1	1	1	1	0	1
	Model's Choice-2 char.	2.167	7	6.334	6.1	7	4	6
	Hit (1) or Miss (0)	0	1	1	1	1	0	1
Inflation Acct.	Resp.'s Choice	7	7	8	5	8	5	3
	Model's Choice-7 char.	5.11	1.87	4.86	4.79	5.05	1.44	4.11
	Hit (1) or Miss (0)	1	0	1	1	1	0	0
	Model's Choice-2 char.	6.666	5.334	6.667	5.9	7	2.25	4
	Hit (1) or Miss (0)	1	1	1	0	1	0	0
Fl.Rble. Sec.	Resp.'s Choice	2	1	7	1	2	8	8
	Model's Choice-7 char.	3.2	1.07	3.69	1.08	1.01	4.7	5.79
	Hit (1) or Miss (0)	1	1	0	1	1	1	1
	Model's Choice-2 char.	1.334	1	1.666	1	1	2	6
	Hit (1) or Miss (0)	1	1	0	1	1	0	1
ITC	Resp.'s Choice	8	8	5	2	7	7	8
	Model's Choice-7 char.	4.3	6	4.47	2.03	6.23	4.6	4.22
	Hit (1) or Miss (0)	1	1	1	1	1	1	1
	Model's Choice-2 char.	4.167	7	5.667	1	6.9	6	5.167
	Hit (1) or Miss (0)	1	1	0	1	1	1	1
Business Comb.	Resp.'s Choice	5	1	9	9	8	8	5
	Model's Choice-7 char.	3.68	2.89	4.54	5.99	3.44	4.2	3.58
	Hit (1) or Miss (0)	1	1	1	1	0	1	1
	Model's Choice-2 char.	2.167	1	5.333	6.8	6.4	4	2
	Hit (1) or Miss (0)	0	1	1	1	1	0	0
Debt Defeasance	Resp.'s Choice	7	3	5	7	3	5	7
	Model's Choice-7 char.	6.36	2.74	4.04	5.45	3.68	4.31	2.69
	Hit (1) or Miss (0)	1	1	1	1	1	1	0
	Model's Choice-2 char.	6.167	3	4	7	4	3	4.334
	Hit (1) or Miss (0)	1	1	1	1	0	0	1
St. of Changes	Resp.'s Choice	2	1	3	2	5	8	7
	Model's Choice-7 char.	3.34	2	3.48	1.69	4	6.05	4
	Hit (1) or Miss (0)	1	1	1	1	1	1	0
	Model's Choice-2 char.	2.167	1	2	1.1	4	5.75	4
	Hit (1) or Miss (0)	1	1	1	1	1	1	0
		SUBJECT 15	SUBJECT 16	SUBJECT 17	SUBJECT 18	SUBJECT 19	SUBJECT 20	SUBJECT 21
Hits by respondent- 7 characteristics		8	7	7	8	7	5	5
	Percent	100.0%	87.5%	87.5%	100.0%	87.5%	62.5%	62.5%
Hits by respondent- 2 characteristics		6	8	5	7	7	2	5
	Percent	75.0%	100.0%	62.5%	87.5%	87.5%	25.0%	62.5%

EXHIBIT 17
(continued)

HIT RATES
USING ALL SUBJECTS

	NO. OF HITS	PERCENT
Hits-7 char.-Early Debt	16	76.2%
Hits-2 char.-Early Debt	13	61.9%
Hits-7 char.-R&D	16	76.2%
Hits-2 char.-R&D	14	66.7%
Hits-7 char.-Inflation Acct.	13	61.9%
Hits-2 char.-Inflation Acct.	12	57.1%
Hits-7 char.-Hkbble. Sec.	16	76.2%
Hits-2 char.-Hkbble. Sec.	14	66.7%
Hits-7 char.- ITC	19	90.5%
Hits-2 char.- ITC	12	57.1%
Hits-7 char.-Business Comb.	17	81.0%
Hits-2 char.-Business Comb.	16	76.2%
Hits-7 char.-Debt Defeasance	17	81.0%
Hits-2 char.-Debt Defeasance	15	71.4%
Hits-7 char.-St. of Changes	19	90.5%
Hits-2 char.-St. of Changes	17	81.0%
Overall Hits-7 char.-	133	75.6%
Overall Hits-2 char.-	113	64.2%

choices of a subject on every issue only once. And over all of the subjects and issues, the model predicted the actual choices of the subjects 64.2 percent of the time. For the seven characteristic model the hit ratio ranged from 37.5 percent (for subjects 8 and 9) to 100 percent (for subjects 2, 15, and 18), with the overall average across all subjects and issues being 75.6 percent. Thus, the seven characteristic model appears to be a much better predictor of accounting method choices than does the model containing only relevance and reliability.

With regard to individual accounting issues (across subjects), the lowest predictive ratio for the two characteristic model was realized for both inflation accounting and the investment tax credit, with overall hit ratios of 57.1 percent. The highest was for the statement of changes, at 81.0 percent. For the seven characteristic model, both the investment tax credit and the statement of changes had the highest hit ratios, at 90.5 percent, while inflation accounting was the issue with the lowest percentage of hits at 61.9 percent.

These results provide some, but not a great deal of evidence to support the notion that the set of qualitative characteristics in SFAC No. 2 is a comprehensive one. The overall hit ratio of 64.2 percent for the two characteristic model does not seem to indicate that the choice of accounting method can be predicted using only the primary decision-specific qualities. Only in one instance (less than five percent of the subjects) did the two characteristic model correctly predict all of a subject's accounting method preferences. Also, the model did not correctly predict the subjects' choices for any issue all of the time. However, the results of the seven characteristic model are

better. This model correctly predicted the subjects' choices in 75.6 percent of the cases. And for three of the subjects (14.3 percent) the model correctly predicted all of their preferences. Thus, it is not clear that an accountant can make an accounting choice by deciding which accounting method alternative offers data that is simply more relevant or more reliable. However, when the other seven qualitative characteristics are considered, there is some improvement.

Inconsistency

An inconsistency index of 0.10 has been suggested as a tolerable level of inconsistency in work using weightings provided by the analytic hierarchy process. The mean inconsistency index for all subjects in this study was 0.128. Professor Ernest Forman, author of the Expert Choice program that was used in this analysis, has suggested that the results also be reported once those subjects whose inconsistency indices are greater than 0.2 have been removed. Therefore, the results of the predictive model were also computed for those subjects whose inconsistency indices were less than 0.2. This meant that the responses of five subjects were removed. The hit rates and percentages for the sixteen subjects with tolerable inconsistency indices are shown in Exhibit 18.

Inconsistency is a phenomenon that exists in many real world situations. However, our decisions are usually improved when inconsistency is minimized. In this study, the overall hit rates improved in twelve of the sixteen cases when those very inconsistent individuals' judgements were removed from consideration.

EXHIBIT 18

HIT RATES EXCLUDING SUBJECTS WITH
INCONSISTENCY INDICES GREATER THAN 0.2

	No. of Hits	Percent
Hits-7 char.-Early Debt	12	75.0
Hits-2 char.-Early Debt	10	62.5
Hits-7 char.-R&D	13	81.2
Hits-2 char.-R&D	11	68.8
Hits-7 char.-Inflation Acct.	10	62.5
Hits-2 char.-Inflation Acct.	11	68.8
Hits-7 char.-Mktble. Sec.	13	81.2
Hits-2 char.-Mktble. Sec.	10	62.5
Hits-7 char.-ITC	16	100.0
Hits-2 char.-ITC	9	56.2
Hits-7 char.-Business Comb.	14	87.5
Hits-2 char.-Business Comb.	12	75.0
Hits-7 char.-Debt Defeasance	14	87.5
Hits-2 char.-Debt Defeasance	12	75.0
Hits-7 char.-St. of Changes	15	93.8
Hits-2 char.-St. of Changes	14	87.5
Overall Hits-7 characteristics	107	83.6
Overalll Hits-2 characteristics	89	69.5

Correlations of Actual Preferences and Predicted Choices

In addition to the hit rates just reported, the actual accounting method choices of the subjects were correlated with the scores of the predictive models used to assess comprehensiveness. This was done twice for each subject, once for the two and once for the seven characteristics models. These correlations and the related probabilities are shown in Exhibit 19. The overall correlation (one correlation computed with the data from all of the subjects) for both sets of correlations were significant at 0.0001. The correlation of the subjects' actual preferences with the seven characteristic model was 0.64058, and the correlation with the two characteristic model was 0.63072. While these correlations are not as high as those reported by Joyce, Libby, and Sunder (0.84) they are none the less encouraging. The average correlation across subjects for each model are also reported in the exhibit. Interestingly, the average correlations drop off slightly when the subjects with inconsistency indexes greater than 0.2 are excluded. The inconsistency index is computed within Expert Choice using the pairwise comparison data that was used to compute the weights for the predictive model, so one could expect that the inconsistencies in judgements would be revealed here. However, the expectation would be that the average correlation would increase, not decrease.

The Subjects Actual Choices

Task 3 of the questionnaire asked the subjects to indicate their choice of accounting method without considering the qualitative characteristics. While the results of Task 3 were presented with the results

EXHIBIT 19

CORRELATIONS OF ACTUAL PREFERENCES
AND PREDICTED CHOICES

		Correlation of Actual Preferences With Predictive Scores From			
		7 Char. Model		2 Char. Model	
Subject		Correlation	Prob.	Correlation	Prob.
1		0.72594	0.0415	0.36205	0.3782
2	*	0.94082	0.0005	0.93048	0.0008
3	*	0.77612	0.0236	0.07509	0.8597
4		0.76670	0.0265	0.70620	0.0502
5		0.50749	0.1992	0.45222	0.2606
6		0.86786	0.0052	0.73720	0.0369
7		0.69588	0.0553	0.41253	0.3098
8		-0.56805	0.1418	-0.05470	0.8976
9	*	-0.28701	0.4907	0.71756	0.0451
10		0.71358	0.0468	0.71453	0.0464
11	*	0.71603	0.0457	0.84588	0.0081
12		0.51185	0.1947	0.93929	0.0005
13		0.57944	0.1322	0.86566	0.0055
14		0.75290	0.0311	0.02978	0.9442
15		0.58205	0.1301	0.53475	0.1721
16		0.79591	0.0181	0.99262	0.0001
17		0.59713	0.1181	0.55561	0.1528
18	*	0.98152	0.0001	0.94400	0.0004
19		0.75422	0.0306	0.94752	0.0003
20		0.33679	0.4146	0.10008	0.8136
21		0.40030	0.3258	0.64891	0.0817
Mean Correlation-All Subjects		0.57845		0.59320	
Mean Correlation-Omitting Subjects With Inconsistency Greater Than 0.2		0.56375		0.55902	
Correlation Over All Subjects		0.64058	0.0001	0.63072	0.0001

* These subjects had inconsistency indexes greater than 0.2.

of the predictive model used to test for comprehensiveness, the choices of the subjects are summarized in Exhibit 20. This Exhibit shows the percentage of respondents that preferred each of the two accounting method choices for the eight accounting issues used in the study. In addition to stating which accounting method they preferred for each issue, the subjects also indicated their strength of preference by using the terms "very mild," "mild," "strong," or "very strong". In some instance a subject had no preference for a specific issue, and those results are also presented.

Of particular note are the preferences for marketable equity securities. 52.4 percent of the respondents indicated that they would rather see securities valued at market, despite the fact that this is not generally accepted. Nearly half of the respondents (47.6 percent) stated that they prefer to see debt defeasance treated as retirement of debt. While this is GAAP when certain conditions are met, this treatment has proven to be very controversial. Also worth of mention are the results for the statement of changes in financial position. An equal number of respondents (42.9 percent) preferred the cash basis and working capital basis statements. While no firm conclusions can be drawn from the opinions of the subjects in this study, this does support what is happening in many companies today; there is a definite shift in many firms away from working capital statements toward those prepared on the cash basis.

Other Information Gathered from the Subjects

After the completion of the three major tasks of the questionnaire, the subjects were asked numerous questions about the experiment itself.

EXHIBIT 20

ACTUAL ACCOUNTING METHOD
PREFERENCES OF THE SUBJECTS

Issue	Accounting Method	Strength of Preference	Percentage of Sujects Responding
Early extingushment of debt	Ordinary income	Very Mild	0.0
		Mild	14.3
		Strong	0.0
		Very Strong	0.0
			14.3
	Extraordinary income	Very Mild	4.8
		Mild	23.8
		Strong	14.3
		Very Strong	33.3
			76.2
	No preference		9.5
Research and development costs	Capitalization	Very Mild	0.0
		Mild	9.5
		Strong	4.8
		Very Strong	0.0
			14.3
	Expense in current period	Very Mild	0.0
		Mild	23.8
		Strong	52.4
		Very Strong	9.5
			85.7
	No preference		0.0
Supplemental inflation data	General price level adjusted	Very Mild	0.0
		Mild	14.3
		Strong	9.5
		Very Strong	0.0
			23.8
	Replacement cost	Very Mild	4.8
		Mild	23.8
		Strong	23.8
		Very Strong	0.0
			52.4
	No preference		23.8

EXHIBIT 20
(continued)

ACTUAL ACCOUNTING METHOD
PREFERENCES OF THE SUBJECTS

Issue	Accounting Method	Strength of Preference	Percentage of Sujects Responding
Marketable equity securities	At "market"	Very Mild	0.0
		Mild	4.8
		Strong	33.3
		Very Strong	14.3
			52.4
	LCM on a portfolio basis	Very Mild	0.0
		Mild	9.5
		Strong	28.6
		Very Strong	9.5
			47.6
	No preference		0.0
Investment tax credit	Deferral	Very Mild	0.0
		Mild	14.3
		Strong	4.8
		Very Strong	0.0
			19.0
	Flow-through	Very Mild	14.3
		Mild	33.3
		Strong	19.0
		Very Strong	4.8
			71.4
	No preference		9.5
Business combinations	Purchase only	Very Mild	0.0
		Mild	9.5
		Strong	14.3
		Very Strong	9.5
			33.3
	Pooling when certain conditions are met	Very Mild	0.0
		Mild	14.3
		Strong	23.8
		Very Strong	9.5
			47.6
	No preference		19.0

EXHIBIT 20
(continued)

ACTUAL ACCOUNTING METHOD
PREFERENCES OF THE SUBJECTS

Issue	Accounting Method	Strength of Preference	Percentage of Sujects Responding
Debt defeasance	Treat as retirement of debt	Very Mild	0.0
		Mild	28.6
		Strong	19.0
		Very Strong	0.0
			47.6
	Do not treat as retirement of debt	Very Mild	0.0
		Mild	19.0
		Strong	4.8
		Very Strong	4.8
			28.6
	No preference		23.8
Statement of changes	Working capital basis	Very Mild	4.8
		Mild	19.0
		Strong	14.3
		Very Strong	4.8
			42.9
	Cash basis	Very Mild	0.0
		Mild	14.3
		Strong	28.6
		Very Strong	0.0
			42.9
	No preference		14.3

Question 1 of this debriefing questionnaire asked the subjects about the clarity of the instructions. Only two of the subjects indicated that any of the instructions were unclear. One of these said that the instructions to the first and second tasks were unclear while the other subject stated that the instructions to only the first task were not clear.

Question 2 asked the respondents to indicate the number of minutes it took them to complete the entire task. The time taken to complete the questionnaire ranged from a minimum of 15 minutes to a maximum of 90 minutes. The mean time taken by the subjects was 48 minutes, and the median was 45 minutes.

The third question asked the subjects how interesting they found the experiment. The results are shown below:

	Number of Responses*
Very dull	1
Dull	7
Interesting	11
Very interesting	0

*Two subjects indicated that their response lies somewhere between dull and interesting.

In Tasks 1 and 3 of the questionnaire the subjects were asked to choose between only two alternative methods for each of the eight accounting issues. Question 3 of the debriefing section asked the subjects

to indicate their preferred choice of accounting method for situations where their preference was not one of the two presented. Only two subjects indicated that their choice was not listed among the alternatives provided. One subject stated that supplemental inflation accounting data should be eliminated altogether, i.e., never presented. The other subject responding to this question said that his answer as to whether a cash or working capital statement of changes in financial position should be prepared depended on the industry of the firm.

Definitions from SFAC No. 2 for each of the nine qualitative characteristics were presented at the top of each page of Task 1. Question 5 asked if any of these definitions were unclear. Only four subjects indicated that any of the definitions were unclear. The qualitative characteristics mentioned and the number of subjects that found those definitions unclear are shown below.

Qualitative Characteristic	Number of subjects indicating unclear definition
Comparability	1
Feedback value	1
Neutrality	1
Relevance	1
Reliability	1
Representational faithfulness	3
Verifiability	2

The comments made by one of the subjects on this question deserves special note. She pointed out that "'faithfully represents' is part of the reliability definition when there is another category Representational Faithfulness."

Question 6 asked the respondents to indicate how helpful the qualitative characteristics and their definitions were when making a choice of accounting method. The responses to part (a) are shown below:

	Number of Responses
Very helpful	2
Somewhat helpful	11
Of little help	8
Of no help	0

Parts (b) and (c) of question 6 asked respondents to indicate particular characteristics and their definitions whose definitions were helpful or little or no help. Eight subjects listed characteristics that were helpful to them and six listed characteristics that were not. The number of subjects listing the qualitative characteristics is shown below:

Qualitative Characteristic	Helpful	Little or No Help
Comparability	4	2
Feedback value	4	4
Neutrality	4	3
Relevance	5	2
Predictive value	5	1
Reliability	4	2
Representational faithfulness	0	3
Timeliness	4	3
Verifiability	4	2

Question 7 asked if the subject had read SFAC No. 2. Fifteen of the respondents (71.4 percent) indicated that they had.

The final debriefing question requested comments regarding the experiment or the experimental materials. Three subjects made comments in this section. They tended to be of a general nature, but one interesting comment was that the study "made me think about what is important in choosing between alternatives."

Summary

This chapter presented the results of the application of the research methodology. The first section provided information about the accountants that participated in the study. Subsequent sections reported the results of the analysis of variance models and the linear predictive model used to assess comprehensiveness. Following those discussions, the actual accounting method preferences of the subjects were presented. The last section of this chapter discussed the information provided by the subjects in the debriefing section of the questionnaire.

The major finding presented in this chapter were:

(1) Both convergent validity and discriminant validity were indicated in the analysis of variance procedures performed on the MTMM data. This is interpreted to mean that (a) the subjects agreed as to the meaning of the same qualitative characteristics and (b) the subjects were able to differentiate between different characteristics.

(2) The ability of the linear model to predict the subjects' actual choices of accounting method was far less than perfect. The model containing relevance and reliability correctly predicted the subjects' choices only 64.2 percent of the time. The seven characteristic model performed better, however, correctly predicting the choices of the

subjects in 75.6 percent of the cases. These results cast some doubt as to the comprehensiveness of the set of qualitative characteristics.

CHAPTER V

SUMMARY AND CONCLUSION

Summary

In 1980 the Financial Accounting Standards Board issued Statement of Financial Accounting Concepts No. 2: Qualitative Characteristics of Accounting Information. The Statement articulates the characteristics that make accounting information useful. The nine characteristic that contribute to decision usefulness are:

1. Relevance
2. Predictive value
3. Feedback value
4. Timeliness
5. Reliability
6. Verifiability
7. Neutrality
8. Representational faithfulness
9. Comparability

These qualitative characteristics are examined in this study to determine if, as a group, they are operational, comprehensive, and parsimonious. Operationality refers to the ability of accountants to actually use the qualitative characteristics when choosing accounting methods. Comprehensiveness refers to the set of characteristics being a

complete one where no qualities that contribute to decision usefulness have been omitted. If none of the qualitative characteristics stated in SFAC No. 2 are redundant the set is considered to be parsimonious one.

Questionnaires were distributed to managers and partners of the Big Eight accounting firms in the Washington, D.C. area in spring, 1985. Twenty-one of twenty-four (87.5 percent) questionnaires were returned. All of these were usable. The questionnaire asked the subjects about the qualitative characteristics within the context of eight accounting issues that had been addressed by the Accounting Principles Board, the Financial Accounting Standards Board, or by both. The eight accounting issues examined were:

1. Early extinguishment of debt
2. Research and development costs
3. Supplemental inflation accounting data for industrial firms
4. Marketable equity securities
5. Investment tax credit
6. Business combinations
7. In-substance defeasance of debt
8. Statement of changes in financial position

The multitrait-multimethod matrix and two separate analyses of variance are utilized to determine if the set of characteristics are operational and parsimonious. The qualitative characteristics are considered operational if both convergent and discriminant validity are

present. The group of characteristics is considered a parsimonous one if discriminant validity is found.

Convergent validity is shown when the subjects rate the nine qualitative characteristics in a similar way. If the qualitative characteristics are to be considered useful they should have common meaning to accountants. Discriminant validity is indicated when characteristics that are supposed to be different are rated differently. That is, the different characteristics should be perceived as being unique. Accountants need to be able to differentiate between characteristics that are truly different. Otherwise, the characteristics do not represent unique concepts.

An analysis of variance proposed by Kavanagh and a repeated measures analysis were used to determine if convergent and discriminant validity are present in the responses of the subjects. Convergent validity is indicated in an ANOVA setting by a significant main effect of issue. Discriminant validity is indicated by a significant issue * trait interaction. The results of the Kavanagh procedure indicated both a significant main effect of issue and a significant issue * trait interaction term. These results were clouded, however, by a significant issue * subject interaction term, which indicated method bias in the results. Therefore, a second ANOVA with repeated measures was run on the data. This procedure controls for the effect of subject, thereby providing a better measure of convergent validity, one that is not affected by method bias. In this test both the main of effect and the issue * trait term were significant at the 0.001 level. As a result, both convergent and discriminant validity were deemed present. This is interpreted to mean

that the subjects are able to both (1) agree as to the meaning of the same characteristics and (2) differentiate between characteristics that are meant to be different. The evidence therefore suggests that the set of qualitative characteristics is both operational and parsimonious.

The test for comprehensiveness involved the use of two linear models to predict each subject's actual preference for each of the eight accounting issues. One model was run using relevance and reliability, which are the primary decision-specific qualities, while the second model included the seven other characteristics that contributed to decision usefulness. The models' predictions were then compared against each subject's stated preference of accounting method, which was obtained from the subjects without reference to the qualitative characteristics. Weights for each of the characteristics were computed within the framework of the analytic hierarchy process. These weights resulted from calculations performed on a series of pairwise comparisons that were made by the subjects at various levels of the hierarchy of accounting qualities in the Statement.

The results from this part of the research are not as conclusive as those reported for the ANOVA. Neither the two nor the seven characteristic model proved to be consistent predictors of the subjects' accounting method choices. The hit ratios (percentage of times the model predicted correctly) were less than perfect, at 64.2 percent overall for the two characteristic model and 75.6 percent for the model containing seven characteristics. These percentages are quite a bit lower than the 89.4 percent reported by Joyce, Libby, and Sunder. Also, when examined over accounting issues for each subject, the overall hit ratios for the two

characteristic model ranged from a low of 25 percent for two of the subjects to a high of 100 percent for only one. For the seven characteristic model the hit ratios ranged from a minimum of 37.5 percent for two of the subjects to a maximum of 100 percent for three respondents. Thus, the seven characteristic model appears to be a much better predictor of accounting method choices than does the model containing only relevance and reliability.

With regard to individual accounting issues, measured across subjects, the lowest predictive ratio for the two characteristic model was 57.1 percent. This occurred for both the inflation accounting and the investment tax credit issues. The highest was for the statement of changes, at 81.0 percent. For the seven characteristic model, both the investment tax credit and the statement of changes had the highest hit ratios, at 90.5 percent, while inflation accounting was the issue with the lowest percentage of hits at 61.9 percent.

In addition to the hit rates, correlations were computed between the actual accounting method preferences of the subjects and the scores from the linear predictive models. These correlations were computed twice for each subject, once with the scores from the seven characteristic model and once with the scores from the two characteristic model. In addition, correlations were computed using data for all subjects. The overall correlation using the seven characteristic model data was 0.64058, and the correlation containing the two characteristic model data was 0.63072. Both were significant at 0.0001. These results are encouraging, though less convincing than those reported by JLS.

If the set of qualitative characteristics is to be considered comprehensive, one would hope that the predictive accuracy and correlations would be higher. Thus, it appears that there might be other characteristics that make accounting information useful in addition to those expressed in SFAC No. 2.

Conclusions

Much of the results of this study are favorable to the Statement. Since the subjects rated like qualitative characteristics in similar ways (convergent validity), the characteristics do have common meaning, at least to the accountants that participated in this study. And the presence of discriminant validity shows that the subjects differentiated between the characteristics and did not consider them to be alike. Thus, the evidence for convergent and discriminant validity indicates that the characteristics are operational. This is a very important result, for if accountants in the field facing accounting choice situations are to look to the qualitative characteristics for guidance, there must be agreement as to what the characteristics mean.

Not as favorable to the Statement are the results of the test for comprehensiveness. Models similar to those used in this study have been used in many fields with good results. Yet the predictive accuracy of the models in this study that contain the qualitative characteristics are far from being perfect predictors of actual choices. If one assume that all of the ingredients for an end result can be combined to form that result, as this methodology does, then it seems that some of the qualities that contribute to the usefulness of accounting information have

been omitted from the Statement. If the Board wishes to espouse a complete set of accounting qualities, perhaps they should consider some additional ones.

The results of this study are even more interesting when compared to those reported by Joyce, Libby, and Sunder. JLS failed to report any substantial amounts of either convergent or discriminant validity. However, as discussed in the analysis chapter of this paper, they may actually have had convergent and discriminant validity in their data but could not identify it because of the methodology employed.

With respect to the predictive accuracy of the linear model used to assess comprehensiveness there is a more significant difference in results. JLS reported a mean predictive accuracy of 89.4 percent for their model containing eleven characteristics, with the model correctly predicting the choices of fifteen of their twenty-six subjects. This is substantially higher than the predictive accuracy found in the present study. A possible explanation of this is that the ex-APB and ex-FASB members that were the subjects in the JLS study have a better understanding of what characteristics are important than do practicing CPAs. However, the accountants in the present study are all managers or partners in their respective firms. As such, they have a great deal of accounting experience. Some of the differences could also be attributed to the way the JLS model was constructed. They used eleven characteristics, while two of them (cost and understandability) were justifiably excluded from this study. Further, JLS did not allow for the fact that the characteristics are in a hierarchy. The present study captures the effects of the hierarchy by employing the analytic hierarchy process.

Thus, the structure of the model in the current study provides a more correct representation of the qualitative characteristics as stated by the FASB than does the JLS model. The effects of the hierarchical structure, however, may serve to diminish the predictive accuracy of the model.

Limitations

This study looks only at one part of the conceptual framework project. "The conceptual framework is a coherent system of interrelated objectives and fundamentals..." (FASB, 1980, p. i). As a result, testing only one part of the framework may bias the results in an unfair manner.

A second possible limitation is that each subject was asked to complete the questionnaire without the help or advise of others. Since accounting choices are often made in a group setting, there may be less agreement with regard to the ratings of the qualitative characteristics and their importance among the subjects in this study than would occur in an actual field setting.

Third, the generalizability of the results of this study to other accountants is not clear. The subjects in this study should be representative of other accountants, but other accountants may not be as familiar with or as aware of the characteristics in SFAC No. 2.

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APPENDIX

Your Name: _____

Firm Name: _____

Title/Position: _____

Department: _____

ABOUT THIS STUDY AND

YOUR PARTICIPATION IN IT

Accounting often involves choosing one or more methods from a set of alternative methods. Difficulty in making these choices has led to various attempts to identify and define the attributes or dimensions of different accounting methods. The latest such effort is the FASB's Statement of Financial Accounting Concepts No. 2, entitled Qualitative Characteristics of Accounting Information. This approach assumes that identifying and defining the important attributes of financial accounting methods will make it easier to make accounting choice decisions in the field. The purpose of this project is to test this assumption.

These same materials are being provided to other accountants in the Washington area. You will be asked to make a number of evaluations based directly on definitions given by the FASB. From the responses I hope to evaluate the FASB definitions of the qualitative characteristics by determining: (1) whether accountants agree on their meaning and relative importance, (2) the degree of overlap of the characteristics, and (3) the completeness of the characteristics as a set. The FASB has expressed concern over each of these issues. The results of this research should

aid the FASB in understanding how experts understand the proposed qualitative characteristics and pinpoint particular areas where future work may be needed.

This research is being conducted as part of my doctoral work at Louisiana State University. Your responses will be held in confidence, and no individual or firm will be identified with the results. Please respond with your own opinions, even if they may differ with those of your firm or the FASB.

Thank you for your participation.

Larry G. Singleton

INSTRUCTIONS

Below are brief descriptions of eight accounting issues that have received attention from accounting policy-making bodies in past years. Though most of these issues have several potential solutions, of which one or more may have been adopted, the issues have been stated in such a way here as to reduce the choice to two major alternatives. In this simplifying process, it is possible that your preferred alternative may have been omitted. However, it is felt that this simplification is necessary to limit the demand on your time as well as to aid me in interpreting your responses.

Please take a few moments to read the descriptions of the accounting choices presented below.

EARLY EXTINGUISHMENT OF DEBT

FASB Statement No. 4 requires that the gains and losses from early extinguishment of debt be treated as an extraordinary item. An alternative would have been to allow firms to treat them as elements of ordinary income.

RESEARCH AND DEVELOPMENT COSTS

FASB Statement No. 2 requires that all research and development costs be expensed in the period the costs are incurred. An alternative would have been to permit research and development costs to be capitalized to the extent that they have reasonably estimable future benefits equal to or in excess of the capitalized amount.

IN-SUBSTANCE DEFEASANCE OF DEBT

FASB Statement No. 76 states that in-substance defeasance of debt should be treated as extinguishment of debt. (This results in the liability being removed from the balance sheet and the recognition of a gain or loss even though the debtor is not legally released from the debt.) An alternative would have been not treat defeasance as extinguishment of debt on the financial statements.

BUSINESS COMBINATIONS

APB Opinion No. 16 states that some business combinations should be accounted for by the purchase method while other combinations should be accounted for by the pooling of interest method. An alternative would have been to require the use of the purchase method for all business combinations.

STATEMENT OF CHANGES IN FINANCIAL POSITION

APB Opinion No. 19 requires the preparation of a statement of changes in financial position. Two alternative ways to prepare the statement are the cash basis and the working capital basis.

INVESTMENT TAX CREDIT

The investment tax credit can be accounted for by the flow-through method (the entire credit is added to the reported income of the period in which the tax credit is received) or by the deferral method (the tax credit is amortized over the useful economic life of the asset).

MARKETABLE EQUITY SECURITIES

FASB Statement No. 12 requires that marketable equity securities be accounted for on the lower-of-cost-or-market on a portfolio basis. An alternative would have been to require the valuation of these assets at market value.

SUPPLEMENTAL INFLATION ACCOUNTING DATA

The FASB has considered two alternatives for larger firms to disclose changing prices -- current (replacement) cost basis and constant dollar (general price level adjusted) data.

Procedures--Task 1

On the nine pages following these instructions are forms for evaluating these eight accounting choices. At the top of each page is an attribute or qualitative characteristic that the FASB has suggested should be used to evaluate reporting alternatives. The definition of each qualitative characteristic has been taken directly from the glossary of Statement of Financial Accounting Concepts No. 2. Below the definition is a list of the eight accounting choices described earlier. For each of the accounting choices (a) indicate which of the alternatives possesses more of the qualitative characteristic, and (b) indicate how much more of the qualitative characteristic the alternative you've chosen has than the other reporting alternative. If further explanation of the definitions is necessary, please refer to the referenced page of the Statement.

Feel free at any time to refer to the descriptions of the accounting choices that you read earlier or to the Statement. You may change your previous answers as you proceed through the task. Your responses should reflect your personal opinion, which may or may not be in conflict with those of various accounting policy-making bodies or your firm. Please perform the work independently.

Participants in a previous study indicated that this is not an easy task. However, your responses will provide some systematic basis for determining how far the FASB has progressed in developing useful definitions of the qualitative characteristics. Please consider each question carefully before writing your response. Please make sure that

you respond to all questions. Failure to respond to even one question will reduce the usefulness of your other responses.

Reliability

"The quality of information that assures that information is reasonably free from error and bias and faithfully represents what it purports to represent." (Glossary, p. xvi; for further explanation see paragraphs 58-62.)

1. EARLY EXTINGUISHMENT OF DEBT
   a. Which alternative provides data which are more reliable? (Circle one.)
      Ordinary income..... 1
      Extraordinary item..... 2
      Reliability does not distinguish between the two alternatives (skip to issue 2)..... 3
   b. How much more reliable are the data from the alternative you have chosen? (Circle one.)
      Slightly more reliable..... 1
      Moderately more reliable..... 2
      Much more reliable..... 3

2. RESEARCH AND DEVELOPMENT COSTS
   a. Which alternative provides data which are more reliable? (Circle one.)
      Capitalization..... 1
      Expensing in current period..... 2
      Reliability does not distinguish between the two alternatives (skip to issue 3)..... 3
   b. How much more reliable are the data from the alternative you have chosen? (Circle one.)
      Slightly more reliable..... 1
      Moderately more reliable..... 2
      Much more reliable..... 3

3. SUPPLEMENTAL INFLATION ACCOUNTING DATA FOR INDUSTRIAL FIRMS
   a. Which alternative provides data which are more reliable? (Circle one.)
      Constant dollar (general price level-adjusted) accounting..... 1
      Current (replacement) cost accounting..... 2
      Reliability does not distinguish between the two alternatives (skip to issue 4)..... 3
   b. How much more reliable are the data from the alternative you have chosen? (Circle one.)
      Slightly more reliable..... 1
      Moderately more reliable..... 2
      Much more reliable..... 3

4. MARKETABLE EQUITY SECURITIES
   a. Which alternative provides data which are more reliable? (Circle one.)
      At "market"..... 1
      Lower of cost or market on a portfolio basis..... 2
      Reliability does not distinguish between the two alternatives (skip to issue 5)..... 3
   b. How much more reliable are the data from the alternative you have chosen? (Circle one.)
      Slightly more reliable..... 1
      Moderately more reliable..... 2
      Much more reliable..... 3

5. INVESTMENT TAX CREDIT
   a. Which alternative provides data which are more reliable? (Circle one.)
      "Deferral"..... 1
      "Flow-through"..... 2
      Reliability does not distinguish between the two alternatives (skip to issue 6)..... 3
   b. How much more reliable are the data from the alternative you have chosen? (Circle one.)
      Slightly more reliable..... 1
      Moderately more reliable..... 2
      Much more reliable..... 3

6. BUSINESS COMBINATIONS
   a. Which alternative provides data which are more reliable? (Circle one.)
      "Purchase" accounting only (no pooling)..... 1
      Pooling when certain conditions are met; "purchase" otherwise..... 2
      Reliability does not distinguish between the two alternatives (skip to issue 7)..... 3
   b. How much more reliable are the data from the alternative you have chosen? (Circle one.)
      Slightly more reliable..... 1
      Moderately more reliable..... 2
      Much more reliable..... 3

7. IN-SUBSTANCE DEFEASANCE OF DEBT
   a. Which alternative provides data which are more reliable? (Circle one.)
      Treat in-substance defeasance as retirement of debt..... 1
      Do not treat in-substance defeasance as retirement of debt..... 2
      Reliability does not distinguish between the two alternatives (skip to issue 8)..... 3
   b. How much more reliable are the data from the data from the alternative you have chosen? (Circle one.)
      Slightly more reliable..... 1
      Moderately more reliable..... 2
      Much more reliable..... 3

8. STATEMENT OF CHANGES IN FINANCIAL POSITION
   a. Which alternative provides data which are more reliable? (Circle one.)
      Cash basis..... 1
      Working capital basis..... 2
      Reliability does not distinguish between the two alternatives (skip to next page)..... 3
   b. How much more reliable are the data from the alternative you have chosen? (Circle one.)
      Slightly more reliable..... 1
      Moderately more reliable..... 2
      Much more reliable..... 3

Neutrality

"Absence in reported information of bias intended to attain a predetermined result or to induce a particular mode of behavior." (*Glossary*, p. xvi; for further explanation see paragraphs 98-110.)

1. EARLY EXTINGUISHMENT OF DEBT
   a. Which alternative provides data which are more neutral? (Circle one.)
      Ordinary income..... 1
      Extraordinary item..... 2
      Neutrality does not distinguish between the two alternatives (skip to issue 2)..... 3
   b. How much more neutral are the data from the alternative you have chosen? (Circle one.)
      Slightly more neutral..... 1
      Moderately more neutral..... 2
      Much more neutral..... 3

2. RESEARCH AND DEVELOPMENT COSTS
   a. Which alternative provides data which are more neutral? (Circle one.)
      Capitalization..... 1
      Expensing in current period..... 2
      Neutrality does not distinguish between the two alternatives (skip to issue 3)..... 3
   b. How much more neutral are the data from the alternative you have chosen? (Circle one.)
      Slightly more neutral..... 1
      Moderately more neutral..... 2
      Much more neutral..... 3

3. SUPPLEMENTAL INFLATION ACCOUNTING DATA FOR INDUSTRIAL FIRMS
   a. Which alternative provides data which are more neutral? (Circle one.)
      Constant dollar (general price level-adjusted) accounting..... 1
      Current (replacement) cost accounting..... 2
      Neutrality does not distinguish between the two alternatives (skip to issue 4)..... 3
   b. How much more neutral are the data from the alternative you have chosen? (Circle one.)
      Slightly more neutral..... 1
      Moderately more neutral..... 2
      Much more neutral..... 3

4. MARKETABLE EQUITY SECURITIES
   a. Which alternative provides data which are more neutral? (Circle one.)
      At "market"..... 1
      Lower of cost or market on a portfolio basis..... 2
      Neutrality does not distinguish between the two alternatives (skip to issue 5)..... 3
   b. How much more neutral are the data from the alternative you have chosen? (Circle one.)
      Slightly more neutral..... 1
      Moderately more neutral..... 2
      Much more neutral..... 3

5. INVESTMENT TAX CREDIT
   a. Which alternative provides data which are more neutral? (Circle one.)
      "Deferral"..... 1
      "Flow-through"..... 2
      Neutrality does not distinguish between the two alternatives (skip to issue 6)..... 3
   b. How much more neutral are the data from the alternative you have chosen? (Circle one.)
      Slightly more neutral..... 1
      Moderately more neutral..... 2
      Much more neutral..... 3

6. BUSINESS COMBINATIONS
   a. Which alternative provides data which are more neutral? (Circle one.)
      "Purchase" accounting only (no pooling)..... 1
      Pooling when certain conditions are met; "purchase" otherwise..... 2
      Neutrality does not distinguish between the two alternatives (skip to issue 7)..... 3
   b. How much more neutral are the data from the alternative you have chosen? (Circle one.)
      Slightly more neutral..... 1
      Moderately more neutral..... 2
      Much more neutral..... 3

7. IN-SUBSTANCE DEFEASANCE OF DEBT
   a. Which alternative provides data which are more neutral? (Circle one.)
      Treat in-substance defeasance as retirement of debt..... 1
      Do not treat in-substance defeasance as retirement of debt..... 2
      Neutrality does not distinguish between the two alternatives (skip to issue 8)..... 3
   b. How much more neutral are the data from the data from the alternative you have chosen? (Circle one.)
      Slightly more neutral..... 1
      Moderately more neutral..... 2
      Much more neutral..... 3

8. STATEMENT OF CHANGES IN FINANCIAL POSITION
   a. Which alternative provides data which are more neutral? (Circle one.)
      Cash basis..... 1
      Working capital basis..... 2
      Neutrality does not distinguish between the two alternatives (skip to next page)..... 3
   b. How much more neutral are the data from the alternative you have chosen? (Circle one.)
      Slightly more neutral..... 1
      Moderately more neutral..... 2
      Much more neutral..... 3

Relevance

"The capacity of information to make a difference in a decision by helping users to form predictions about the outcomes of past, present, and future events or to confirm or correct prior expectations." (Glossary, p. xvi; for further explanation see paragraphs 46-50.)

1. EARLY EXTINGUISHMENT OF DEBT
   a. Which alternative provides data which are more relevant? (Circle one.)
      Ordinary income..... 1
      Extraordinary item..... 2
      Relevance does not distinguish between the two alternatives (skip to issue 2)..... 3
   b. How much more relevant are the data from the alternative you have chosen? (Circle one.)
      Slightly more relevant..... 1
      Moderately more relevant..... 2
      Much more relevant..... 3

2. RESEARCH AND DEVELOPMENT COSTS
   a. Which alternative provides data which are more relevant? (Circle one.)
      Capitalization..... 1
      Expensing in current period..... 2
      Relevance does not distinguish between the two alternatives (skip to issue 3)..... 3
   b. How much more relevant are the data from the alternative you have chosen? (Circle one.)
      Slightly more relevant..... 1
      Moderately more relevant..... 2
      Much more relevant..... 3

3. SUPPLEMENTAL INFLATION ACCOUNTING DATA FOR INDUSTRIAL FIRMS
   a. Which alternative provides data which are more relevant? (Circle one.)
      Constant dollar (general price level-adjusted) accounting..... 1
      Current (replacement) cost accounting..... 2
      Relevance does not distinguish between the two alternatives (skip to issue 4)..... 3
   b. How much more relevant are the data from the alternative you have chosen? (Circle one.)
      Slightly more relevant..... 1
      Moderately more relevant..... 2
      Much more relevant..... 3

4. MARKETABLE EQUITY SECURITIES
   a. Which alternative provides data which are more relevant? (Circle one.)
      At "market"..... 1
      Lower of cost or market on a portfolio basis..... 2
      Relevance does not distinguish between the two alternatives (skip to issue 5)..... 3
   b. How much more relevant are the data from the alternative you have chosen? (Circle one.)
      Slightly more relevant..... 1
      Moderately more relevant..... 2
      Much more relevant..... 3

5. INVESTMENT TAX CREDIT
   a. Which alternative provides data which are more relevant? (Circle one.)
      "Deferral"..... 1
      "Flow-through"..... 2
      Relevance does not distinguish between the two alternatives (skip to issue 6)..... 3
   b. How much more relevant are the data from the alternative you have chosen? (Circle one.)
      Slightly more relevant..... 1
      Moderately more relevant..... 2
      Much more relevant..... 3

6. BUSINESS COMBINATIONS
   a. Which alternative provides data which are more relevant? (Circle one.)
      "Purchase" accounting only (no pooling)..... 1
      Pooling when certain conditions are met; "purchase" otherwise..... 2
      Relevance does not distinguish between the two alternatives (skip to issue 7)..... 3
   b. How much more relevant are the data from the alternative you have chosen? (Circle one.)
      Slightly more relevant..... 1
      Moderately more relevant..... 2
      Much more relevant..... 3

7. IN-SUBSTANCE DEFEASANCE OF DEBT
   a. Which alternative provides data which are more relevant? (Circle one.)
      Treat in-substance defeasance as retirement of debt..... 1
      Do not treat in-substance defeasance as retirement of debt..... 2
      Relevance does not distinguish between the two alternatives (skip to issue 8)..... 3
   b. How much more relevant are the data from the data from the alternative you have chosen? (Circle one.)
      Slightly more relevant..... 1
      Moderately more relevant..... 2
      Much more relevant..... 3

8. STATEMENT OF CHANGES IN FINANCIAL POSITION
   a. Which alternative provides data which are more relevant? (Circle one.)
      Cash basis..... 1
      Working capital basis..... 2
      Relevance does not distinguish between the two alternatives (skip to next page)..... 3
   b. How much more relevant are the data from the alternative you have chosen? (Circle one.)
      Slightly more relevant..... 1
      Moderately more relevant..... 2
      Much more relevant..... 3

Feedback Value

"The quality of information that enables users to confirm or correct prior expectations." (Glossary, p. xv; for further explanation see paragraphs 51-52.

1. EARLY EXTINGUISHMENT OF DEBT
   a. Which alternative provides data which have more feedback value? (Circle one.)
      Ordinary income..... 1
      Extraordinary item..... 2
      Feedback value does not distinguish between the two alternatives (skip to issue 2).. 3
   b. How much more feedback value do data have compared to the alternative you have chosen? (Circle one.)
      Slightly more feedback value.... 1
      Moderately more feedback value.. 2
      Much more feedback value..... 3

2. RESEARCH AND DEVELOPMENT COSTS
   a. Which alternative provides data which have more feedback value? (Circle one.)
      Capitalization..... 1
      Expensing in current period..... 2
      Feedback value does not distinguish between the two alternatives (skip to issue 3).. 3
   b. How much more feedback value do the data have compared to the alternative you have chosen? (Circle one.)
      Slightly more feedback value.... 1
      Moderately more feedback value.. 2
      Much more feedback value..... 3

3. SUPPLEMENTAL INFLATION ACCOUNTING DATA FOR INDUSTRIAL FIRMS
   a. Which alternative provides data which have more feedback value? (Circle one.)
      Constant dollar (general price level-adjusted) accounting..... 1
      Current (replacement) cost accounting..... 2
      Feedback value does not distinguish between the two alternatives (skip to issue 4).. 3
   b. How much more feedback value do the data have compared to the alternative you have chosen? (Circle one.)
      Slightly more feedback value.... 1
      Moderately more feedback value.. 2
      Much more feedback value..... 3

4. MARKETABLE EQUITY SECURITIES
   a. Which alternative provides data which have more feedback value? (Circle one.)
      At "market"..... 1
      Lower of cost or market on a portfolio basis..... 2
      Feedback value does not distinguish between the two alternatives (skip to issue 5).. 3
   b. How much more feedback value do the data have compared to the alternative you have chosen? (Circle one.)
      Slightly more feedback value.... 1
      Moderately more feedback value.. 2
      Much more feedback value..... 3

5. INVESTMENT TAX CREDIT
   a. Which alternative provides data which have more feedback value? (Circle one.)
      "Deferral"..... 1
      "Flow-through"..... 2
      Feedback value does not distinguish between the two alternatives (skip to issue 6)..... 3
   b. How much more feedback value do the data have compared to the alternative you have chosen? (Circle one.)
      Slightly more feedback value..... 1
      Moderately more feedback value... 2
      Much more feedback value..... 3

6. BUSINESS COMBINATIONS
   a. Which alternative provides data which have more feedback value? (Circle one.)
      "Purchase" accounting only (no pooling)..... 1
      Pooling when certain conditions are met; "purchase" otherwise..... 2
      Feedback value does not distinguish between the two alternatives (skip to issue 7)..... 3
   b. How much more feedback value do the data have compared to the alternative you have chosen? (Circle one.)
      Slightly more feedback value..... 1
      Moderately more feedback value... 2
      Much more feedback value..... 3

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   a. Which alternative provides data which have more feedback value? (Circle one.)
      Treat in-substance defeasance as retirement of debt..... 1
      Do not treat in-substance defeasance as retirement of debt..... 2
      Feedback value does not distinguish between the two alternatives (skip to issue 8)..... 3
   b. How much more feedback value do the data have compared to the alternative you have chosen? (Circle one.)
      Slightly more feedback value..... 1
      Moderately more feedback value... 2
      Much more feedback value..... 3

8. STATEMENT OF CHANGES IN FINANCIAL POSITION
   a. Which alternative provides data which have more feedback value? (Circle one.)
      Cash basis..... 1
      Working capital basis..... 2
      Feedback value does not distinguish between the two alternatives (skip to next page)..... 3
   b. How much more feedback value do the data have compared to the alternative you have chosen? (Circle one.)
      Slightly more feedback value..... 1
      Moderately more feedback value... 2
      Much more feedback value..... 3

Representational Faithfulness

"Correspondence or agreement between a measure or description and the phenomenon that it purports to represent (sometimes called validity)." (Glossary, p. xvi; for further explanation see paragraphs 63-71.

1. EARLY EXTINGUISHMENT OF DEBT
   a. Which alternative provides data which have more representational faithfulness (Circle one.)
      Ordinary income..... 1
      Extraordinary item..... 2
      Representational faithfulness does not distinguish between the two alternatives (skip to issue 2).. 3
   b. How much more representationally faithful are the data from the alternative you have chosen? (Circle one.)
      Slightly more representationally faithful..... 1
      Moderately more representationally faithful..... 2
      Much more representationally faithful..... 3

2. RESEARCH AND DEVELOPMENT COSTS
   a. Which alternative provides data which have more representational faithfulness? (Circle one.)
      Capitalization..... 1
      Expensing in current period..... 2
      Representational faithfulness does not distinguish between the two alternatives (skip to issue 3).. 3
   b. How much more representationally faithful are the data from the alternative you have chosen? (Circle one.)
      Slightly more representationally faithful..... 1
      Moderately more representationally faithful..... 2
      Much more representationally faithful..... 3

3. SUPPLEMENTAL INFLATION ACCOUNTING DATA FOR INDUSTRIAL FIRMS
   a. Which alternative provides data which have more representational faithfulness? (Circle one.)
      Constant dollar (general price level-adjusted) accounting..... 1
      Current (replacement) cost accounting..... 2
      Representational faithfulness does not distinguish between the two alternatives (skip to issue 4).. 3
   b. How much more representationally faithful are the data from the alternative you have chosen? (Circle one.)
      Slightly more representationally faithful..... 1
      Moderately more representationally faithful..... 2
      Much more representationally faithful..... 3

4. MARKETABLE EQUITY SECURITIES
   a. Which alternative provides data which have more representational faithfulness? (Circle one.)
      At "market"..... 1
      Lower of cost or market on a portfolio basis..... 2
      Representational faithfulness does not distinguish between the two alternatives (skip to issue 5).. 3
   b. How much more representationally faithful are the data from the alternative you have chosen? (Circle one.)
      Slightly more representationally faithful..... 1
      Moderately more representationally faithful..... 2
      Much more representationally faithful..... 3

5. INVESTMENT TAX CREDIT
   a. Which alternative provides data which have more representational faithfulness? (Circle one.)
      "Deferral"..... 1
      "Flow-through"..... 2
      Representational faithfulness does not distinguish between the two alternatives (skip to issue 6)... 3
   b. How much more representationally faithful are the data from the alternative you have chosen? (Circle one.)
      Slightly more representationally faithful..... 1
      Moderately more representationally faithful..... 2
      Much more representationally faithful..... 3

6. BUSINESS COMBINATIONS
   a. Which alternative provides data which have more representational faithfulness? (Circle one.)
      "Purchase" accounting only (no pooling)..... 1
      Pooling when certain conditions are met; "purchase" otherwise..... 2
      Representational faithfulness does not distinguish between the two alternatives (skip to issue 7)... 3
   b. How much more representationally faithful are the data from the alternative you have chosen? (Circle one.)
      Slightly more representationally faithful..... 1
      Moderately more representationally faithful..... 2
      Much more representationally faithful..... 3

7. IN-SUBSTANCE DEFEASANCE OF DEBT
   a. Which alternative provides data which have more representational faithfulness? (Circle one.)
      Treat in-substance defeasance as retirement of debt..... 1
      Do not treat in-substance defeasance as retirement of debt..... 2
      Representational faithfulness does not distinguish between the two alternatives (skip to issue 8)... 3
   b. How much more representationally faithful are the data from the alternative you have chosen? (Circle one.)
      Slightly more representationally faithful..... 1
      Moderately more representationally faithful..... 2
      Much more representationally faithful..... 3

8. STATEMENT OF CHANGES IN FINANCIAL POSITION
   a. Which alternative provides data which have more representational faithfulness? (Circle one.)
      Cash basis..... 1
      Working capital basis..... 2
      Representational faithfulness does not distinguish between the two alternatives (skip to next page)..... 3
   b. How much more representationally faithful are the data from the alternative you have chosen? (Circle one.)
      Slightly more representationally faithful..... 1
      Moderately more representationally faithful..... 2
      Much more representationally faithful..... 3

Predictive Value

"The quality of information that helps users to increase the likelihood of correctly forecasting the outcome of past or present events." (Glossary, p. xvi; for further explanation see paragraphs 53-55.

1. EARLY EXTINGUISHMENT OF DEBT
   a. Which alternative provides data which have more predictive value? (Circle one.)
      Ordinary income..... 1
      Extraordinary item..... 2
      Predictive value does not distinguish between the two alternatives (skip to issue 2).... 3
   b. How much more predictive value do the data have compared to the alternative you have chosen? (Circle one.)
      Slightly more predictive value.... 1
      Moderately more predictive value.. 2
      Much more predictive value..... 3

2. RESEARCH AND DEVELOPMENT COSTS
   a. Which alternative provides data which have more predictive value? (Circle one.)
      Capitalization..... 1
      Expensing in current period..... 2
      Predictive value does not distinguish between the two alternatives (skip to issue 3).... 3
   b. How much more predictive value do the data have compared to the alternative you have chosen? (Circle one.)
      Slightly more predictive value.... 1
      Moderately more predictive value.. 2
      Much more predictive value..... 3

3. SUPPLEMENTAL INFLATION ACCOUNTING DATA FOR INDUSTRIAL FIRMS
   a. Which alternative provides data which have more predictive value? (Circle one.)
      Constant dollar (general price level-adjusted) accounting..... 1
      Current (replacement) cost accounting..... 2
      Predictive value does not distinguish between the two alternatives (skip to issue 4).... 3
   b. How much more predictive value do the data have compared to the alternative you have chosen? (Circle one.)
      Slightly more predictive value.... 1
      Moderately more predictive value...2
      Much more predictive value..... 3

4. MARKETABLE EQUITY SECURITIES
   a. Which alternative provides data which have more predictive value? (Circle one.)
      At "market"..... 1
      Lower of cost or market on a portfolio basis..... 2
      Predictive value does not distinguish between the two alternatives (skip to issue 5).... 3
   b. How much more predictive value do the data have compared to the alternative you have chosen? (Circle one.)
      Slightly more predictive value.... 1
      Moderately more predictive value.. 2
      Much more predictive value..... 3

5. INVESTMENT TAX CREDIT
   a. Which alternative provides data which have more predictive value? (Circle one.)
      "Deferral"..... 1
      "Flow-through"..... 2
      Predictive value does not distinguish between the two alternatives (skip to issue 6)..... 3
   b. How much more predictive value do the data have compared to the alternative you have chosen? (Circle one.)
      Slightly more predictive value..... 1
      Moderately more predictive value.... 2
      Much more predictive value..... 3

6. BUSINESS COMBINATIONS
   a. Which alternative provides data which have more predictive value? (Circle one.)
      "Purchase" accounting only (no pooling)..... 1
      Pooling when certain conditions are met; "purchase" otherwise..... 2
      Predictive value does not distinguish between the two alternatives (skip to issue 7)..... 3
   b. How much more predictive value do the data have compared to the alternative you have chosen? (Circle one.)
      Slightly more predictive value..... 1
      Moderately more predictive value.... 2
      Much more predictive value..... 3

7. IN-SUBSTANCE DEFEASANCE OF DEBT
   a. Which alternative provides data which have more predictive value? (Circle one.)
      Treat in-substance defeasance as retirement of debt..... 1
      Do not treat in-substance defeasance as retirement of debt..... 2
      Predictive value does not distinguish between the two alternatives (skip to issue 8)..... 3
   b. How much more predictive value do the data have compared to the alternative you have chosen? (Circle one.)
      Slightly more predictive value..... 1
      Moderately more predictive value.... 2
      Much more predictive value..... 3

8. STATEMENT OF CHANGES IN FINANCIAL POSITION
   a. Which alternative provides data which have more predictive value? (Circle one.)
      Cash basis..... 1
      Working capital basis..... 2
      Predictive value does not distinguish between the two alternatives (skip to next page)..... 3
   b. How much more predictive value do the data have compared to the alternative you have chosen? (Circle one.)
      Slightly more predictive value..... 1
      Moderately more predictive value.... 2
      Much more predictive value..... 3

Timeliness

"Having information available to a decision-maker before it loses its capacity to influence decisions." (Glossary, p. xvi; for further explanation see paragraphs 56-57.

1. EARLY EXTINGUISHMENT OF DEBT
   a. Which alternative provides data which are more timely? (Circle one.)
      Ordinary income..... 1
      Extraordinary item..... 2
      Timeliness does not distinguish between the two alternatives (skip to issue 2)..... 3
   b. How much more timely are the data from the alternative you have chosen? (Circle one.)
      Slightly more timely..... 1
      Moderately more timely..... 2
      Much more timely..... 3

2. RESEARCH AND DEVELOPMENT COSTS
   a. Which alternative provides data which are more timely? (Circle one.)
      Capitalization..... 1
      Expensing in current period..... 2
      Timeliness does not distinguish between the two alternatives (skip to issue 3)..... 3
   b. How much more timely are the data from the alternative you have chosen? (Circle one.)
      Slightly more timely..... 1
      Moderately more timely..... 2
      Much more timely..... 3

3. SUPPLEMENTAL INFLATION ACCOUNTING DATA FOR INDUSTRIAL FIRMS
   a. Which alternative provides data which are more timely? (Circle one.)
      Constant dollar (general price level-adjusted) accounting..... 1
      Current (replacement) cost accounting..... 2
      Timeliness does not distinguish between the two alternatives (skip to issue 4)..... 3
   b. How much more timely are the data from the alternative you have chosen? (Circle one.)
      Slightly more timely..... 1
      Moderately more timely..... 2
      Much more timely..... 3

4. MARKETABLE EQUITY SECURITIES
   a. Which alternative provides data which are more timely? (Circle one.)
      At "market"..... 1
      Lower of cost or market on a portfolio basis..... 2
      Timeliness does not distinguish between the two alternatives (skip to issue 5)..... 3
   b. How much more timely are the data from the alternative you have chosen? (Circle one.)
      Slightly more timely..... 1
      Moderately more timely..... 2
      Much more timely..... 3

5. INVESTMENT TAX CREDIT
   a. Which alternative provides data which are more timely? (Circle one.)
      "Deferral"..... 1
      "Flow-through"..... 2
      Timeliness does not distinguish between the two alternatives (skip to issue 6)..... 3
   b. How much more timely are the data from the alternative you have chosen? (Circle one.)
      Slightly more timely..... 1
      Moderately more timely..... 2
      Much more timely..... 3

6. BUSINESS COMBINATIONS
   a. Which alternative provides data which are more timely? (Circle one.)
      "Purchase" accounting only (no pooling)..... 1
      Pooling when certain conditions are met; "purchase" otherwise..... 2
      Timeliness does not distinguish between the two alternatives (skip to issue 7)..... 3
   b. How much more timely are the data from the alternative you have chosen? (Circle one.)
      Slightly more timely..... 1
      Moderately more timely..... 2
      Much more timely..... 3

7. IN-SUBSTANCE DEFEASANCE OF DEBT
   a. Which alternative provides data which are more timely? (Circle one.)
      Treat in-substance defeasance as retirement of debt..... 1
      Do not treat in-substance defeasance as retirement of debt..... 2
      Timeliness does not distinguish between the two alternatives (skip to issue 8)..... 3
   b. How much more timely are the data from the data from the alternative you have chosen? (Circle one.)
      Slightly more timely..... 1
      Moderately more timely..... 2
      Much more timely..... 3

8. STATEMENT OF CHANGES IN FINANCIAL POSITION
   a. Which alternative provides data which are more timely? (Circle one.)
      Cash basis..... 1
      Working capital basis..... 2
      Timeliness does not distinguish between the two alternatives (skip to next page)..... 3
   b. How much more timely are the data from the alternative you have chosen? (Circle one.)
      Slightly more timely..... 1
      Moderately more timely..... 2
      Much more timely..... 3

Comparability

"The quality of information that enables users to identify similarities in and differences between two sets of economic phenomena." (Glossary, p. xv; for further explanation see SFAC No. 2, paragraphs 111-119.

1. EARLY EXTINGUISHMENT OF DEBT
   a. Which alternative provides data which are more comparable? (Circle one.)
      Ordinary income..... 1
      Extraordinary item..... 2
      Comparability does not distinguish between the two alternatives (skip to issue 2)..... 3
   b. How much more comparable are the data from the alternative you have chosen? (Circle one.)
      Slightly more comparable..... 1
      Moderately more comparable..... 2
      Much more comparable..... 3

2. RESEARCH AND DEVELOPMENT COSTS
   a. Which alternative provides data which are more comparable? (Circle one.)
      Capitalization..... 1
      Expensing in current period..... 2
      Comparability does not distinguish between the two alternatives (skip to issue 3)..... 3
   b. How much more comparable are the data from the alternative you have chosen? (Circle one.)
      Slightly more comparable..... 1
      Moderately more comparable..... 2
      Much more comparable..... 3

3. SUPPLEMENTAL INFLATION ACCOUNTING DATA FOR INDUSTRIAL FIRMS
   a. Which alternative provides data which are more comparable? (Circle one.)
      Constant dollar (general price level-adjusted) accounting..... 1
      Current (replacement) cost accounting..... 2
      Comparability does not distinguish between the two alternatives (skip to issue 4)..... 3
   b. How much more comparable are the data from the alternative you have chosen? (Circle one.)
      Slightly more comparable..... 1
      Moderately more comparable..... 2
      Much more comparable..... 3

4. MARKETABLE EQUITY SECURITIES
   a. Which alternative provides data which are more comparable? (Circle one.)
      At "market"..... 1
      Lower of cost or market on a portfolio basis..... 2
      Comparability does not distinguish between the two alternatives (skip to issue 5)..... 3
   b. How much more comparable are the data from the alternative you have chosen? (Circle one.)
      Slightly more comparable..... 1
      Moderately more comparable..... 2
      Much more comparable..... 3

5. INVESTMENT TAX CREDIT
   a. Which alternative provides data which are more comparable? (Circle one.)
      "Deferral"..... 1
      "Flow-through"..... 2
      Comparability does not distinguish between the two alternatives (skip to issue 6)..... 3
   b. How much more comparable are the data from the alternative you have chosen? (Circle one.)
      Slightly more comparable..... 1
      Moderately more comparable..... 2
      Much more comparable..... 3

6. BUSINESS COMBINATIONS
   a. Which alternative provides data which are more comparable? (Circle one.)
      "Purchase" accounting only (no pooling)..... 1
      Pooling when certain conditions are met; "purchase" otherwise..... 2
      Comparability does not distinguish between the two alternatives (skip to issue 7)..... 3
   b. How much more comparable are the data from the alternative you have chosen? (Circle one.)
      Slightly more comparable..... 1
      Moderately more comparable..... 2
      Much more comparable..... 3

7. IN-SUBSTANCE DEFEASANCE OF DEBT
   a. Which alternative provides data which are more comparable? (Circle one.)
      Treat in-substance defeasance as retirement of debt..... 1
      Do not treat in-substance defeasance as retirement of debt..... 2
      Comparability does not distinguish between the two alternatives (skip to issue 8)..... 3
   b. How much more comparable are the data from the data from the alternative you have chosen? (Circle one.)
      Slightly more comparable..... 1
      Moderately more comparable..... 2
      Much more comparable..... 3

8. STATEMENT OF CHANGES IN FINANCIAL POSITION
   a. Which alternative provides data which are more comparable? (Circle one.)
      Cash basis..... 1
      Working capital basis..... 2
      Comparability does not distinguish between the two alternatives (skip to next page)..... 3
   b. How much more comparable are the data from the alternative you have chosen? (Circle one.)
      Slightly more comparable..... 1
      Moderately more comparable..... 2
      Much more comparable..... 3

Verifiability

"The ability through consensus among measures to ensure that information represents what it purports to represent or that the chosen method of measurement has been used without error or bias." (Glossary, p. xvi; for further explanation see Statement, paragraphs 81-89.)

1. EARLY EXTINGUISHMENT OF DEBT
   a. Which alternative provides data which are more verifiable? (Circle one.)
      Ordinary income..... 1
      Extraordinary item..... 2
      Verifiability does not distinguish between the two alternatives (skip to issue 2)..... 3
   b. How much more verifiable are the data from the alternative you have chosen? (Circle one.)
      Slightly more verifiable..... 1
      Moderately more verifiable..... 2
      Much more verifiable..... 3

2. RESEARCH AND DEVELOPMENT COSTS
   a. Which alternative provides data which are more verifiable? (Circle one.)
      Capitalization..... 1
      Expensing in current period..... 2
      Verifiability does not distinguish between the two alternatives (skip to issue 3)..... 3
   b. How much more verifiable are the data from the alternative you have chosen? (Circle one.)
      Slightly more verifiable..... 1
      Moderately more verifiable..... 2
      Much more verifiable..... 3

3. SUPPLEMENTAL INFLATION ACCOUNTING DATA FOR INDUSTRIAL FIRMS
   a. Which alternative provides data which are more verifiable? (Circle one.)
      Constant dollar (general price level-adjusted) accounting..... 1
      Current (replacement) cost accounting..... 2
      Verifiability does not distinguish between the two alternatives (skip to issue 4)..... 3
   b. How much more verifiable are the data from the alternative you have chosen? (Circle one.)
      Slightly more verifiable..... 1
      Moderately more verifiable..... 2
      Much more verifiable..... 3

4. MARKETABLE EQUITY SECURITIES
   a. Which alternative provides data which are more verifiable? (Circle one.)
      At "market"..... 1
      Lower of cost or market on a portfolio basis..... 2
      Verifiability does not distinguish between the two alternatives (skip to issue 5)..... 3
   b. How much more verifiable are the data from the alternative you have chosen? (Circle one.)
      Slightly more verifiable..... 1
      Moderately more verifiable..... 2
      Much more verifiable..... 3

5. INVESTMENT TAX CREDIT
   a. Which alternative provides data which are more verifiable? (Circle one.)
      "Deferral"..... 1
      "Flow-through"..... 2
      Verifiability does not distinguish between the two alternatives (skip to issue 6)..... 3
   b. How much more verifiable are the data from the alternative you have chosen? (Circle one.)
      Slightly more verifiable..... 1
      Moderately more verifiable..... 2
      Much more verifiable..... 3

6. BUSINESS COMBINATIONS
   a. Which alternative provides data which are more verifiable? (Circle one.)
      "Purchase" accounting only (no pooling)..... 1
      Pooling when certain conditions are met; "purchase" otherwise..... 2
      Verifiability does not distinguish between the two alternatives (skip to issue 7)..... 3
   b. How much more verifiable are the data from the alternative you have chosen? (Circle one.)
      Slightly more verifiable..... 1
      Moderately more verifiable..... 2
      Much more verifiable..... 3

7. IN-SUBSTANCE DEFEASANCE OF DEBT
   a. Which alternative provides data which are more verifiable? (Circle one.)
      Treat in-substance defeasance as retirement of debt..... 1
      Do not treat in-substance defeasance as retirement of debt..... 2
      Verifiability does not distinguish between the two alternatives (skip to issue 8)..... 3
   b. How much more verifiable are the data from the data from the alternative you have chosen? (Circle one.)
      Slightly more verifiable..... 1
      Moderately more verifiable..... 2
      Much more verifiable..... 3

8. STATEMENT OF CHANGES IN FINANCIAL POSITION
   a. Which alternative provides data which are more verifiable? (Circle one.)
      Cash basis..... 1
      Working capital basis..... 2
      Verifiability does not distinguish between the two alternatives (skip to next page)..... 3
   b. How much more verifiable are the data from the alternative you have chosen? (Circle one.)
      Slightly more verifiable..... 1
      Moderately more verifiable..... 2
      Much more verifiable..... 3

Procedures--Task 2

Now that you have completed Task 1, you are asked to make a series of pairwise comparisons with some objective in mind. For example, you may be considering the purchase of a personal computer. Two criteria you consider important to your decision of which computer to buy might be the ease of use of the machine and the availability of software for the machine. If you consider the availability of software as absolutely more important than the machine's ease of use, you would score the comparison by placing a 9 (see scale below) next to software availability, as shown below.

__9__ Software availability : Ease of use _____

If, instead, you felt that ease of use was weakly more important than was the availability of software, you would place a 3 next to ease of use:

_____ Software availability : Ease of use __3__

If you felt that the two characteristics were of equal importance you would place a 1 in either blank.

Note that a number is placed by only one of the two characteristics.

Please respond to all questions.

PLEASE INDICATE YOUR RESPONSES BY USING THE FOLLOWING NUMERICAL SCALE:

Intensity of Importance	Definition	Explanation
1	Equal importance	Two activities or times contribute equally to the objective
3	Weak importance of one over another	Experience and judgment slightly favor one activity or item over another
5	Essential or strong importance	Experience and judgment strongly favor one activity over another
7	Demonstrated importance	An activity or item is strongly favored and its dominance is demonstrated in practice
9	Absolute importance	The evidence favoring one activity over another is of the highest possible order of affirmation
2,4,6,8	Intermediate values between the two adjacent judgments	When compromise is needed

FOR EACH PAIRWISE COMPARISON, PLEASE REMEMBER TO PLACE A NUMBER NEXT TO ONLY ONE OF THE TWO CHARACTERISTICS.

FOR THIS PAIRWISE COMPARISION, PLEASE REMEMBER TO PLACE A NUMBER NEXT TO ONLY ONE OF THE TWO CHARACTERISTICS.

I. Relative importance with respect to Decision Usefulness.

_____ Relevance : Reliability _____

Intensity of Importance	Definition	Explanation
1	Equal importance	Two activities or times contribute equally to the objective
3	Weak importance of one over another	Experience and judgment slightly favor one activity or item over another
5	Essential or strong importance	Experience and judgment strongly favor one activity over another
7	Demonstrated importance	An activity or item is strongly favored and its dominance is demonstrated in practice
9	Absolute importance	The evidence favoring one activity over another is of the highest possible order of affirmation
2,4,6,8	Intermediate values between the two adjacent judgments	When compromise is needed

FOR EACH PAIRWISE COMPARISON, PLEASE REMEMBER TO PLACE A NUMBER NEXT TO ONLY ONE OF THE TWO CHARACTERISTICS.

II. Relative Importance with respect to Relevance.

_____	Predictive value	:	Comparability	_____
_____	Feedback value	:	Timeliness	_____
_____	Comparability	:	Feedback value	_____
_____	Timeliness	:	Comparability	_____
_____	Feedback value	:	Predictive value	_____
_____	Timeliness	:	Predictive value	_____

Intensity of Importance	Definition	Explanation
1	Equal importance	Two activities or times contribute equally to the objective
3	Weak importance of one over another	Experience and judgment slightly favor one activity or item over another
5	Essential or strong importance	Experience and judgment strongly favor one activity over another
7	Demonstrated importance	An activity or item is strongly favored and its dominance is demonstrated in practice
9	Absolute importance	The evidence favoring one activity over another is of the highest possible order of affirmation
2,4,6,8	Intermediate values between the two adjacent judgments	When compromise is needed

FOR EACH PAIRWISE COMPARISON, PLEASE REMEMBER TO PLACE A NUMBER NEXT TO ONLY ONE OF THE TWO CHARACTERISTICS.

III. Relative Importance with respect to Reliability.

____	Verifiability	: Representational faithfulness	____
____	Neutrality	: Comparability	____
____	Representational faithfulness	: Neutrality	____
____	Comparability	: Verifiability	____
____	Representational faithfulness	: Comparability	____
____	Neutrality	: Verifiability	____

Intensity of Importance	Definition	Explanation
1	Equal importance	Two activities or times contribute equally to the objective
3	Weak importance of one over another	Experience and judgment slightly favor one activity or item over another
5	Essential or strong importance	Experience and judgment strongly favor one activity over another
7	Demonstrated importance	An activity or item is strongly favored and its dominance is demonstrated in practice
9	Absolute importance	The evidence favoring one activity over another is of the highest possible order of affirmation
2,4,6,8	Intermediate values between the two adjacent judgments	When compromise is needed

Procedures--Task 3

As the final part of your participation in the study please indicate which of the two accounting alternatives you prefer in each of the eight accounting choice situations described earlier. The eight issues are the same ones you evaluated in Task 1. For each accounting Issue, you will be asked to provide two responses. First, indicate which of the two alternatives you prefer for each issue by circling the number beside your choice. Second, indicate the strength of your preference for the selected alternative over the other alternative by circling the appropriate number on the four-point scale labeled from "very mild" (1) to "very strong" (4) printed next to the choices. Don't be concerned if you prefer an unlisted alternative more than the two provided. At this point, you need only choose from the two listed alternatives. In the next section, you will be asked to indicate alternatives that you prefer over those presented. Again, please respond to all questions.

I. A. Which of the following alternatives do you prefer more for BUSINESS COMBINATIONS? (Circle one number.)

"Purchase accounting only (no pooling).....1

Pooling when certain conditions are met; "purchase" otherwise.....2

No preference (skip to V).....3

B. How strong is your preference for the selected alternative over the other alternative? (Circle one number.)

Very mild.....1

Mild.....2

Strong.....3

Very strong.....4

II. A. Which of the following alternatives do you prefer more for RESEARCH AND DEVELOPMENT COSTS? (Circle one number.)

Capitalization.....1

Expensing in current period.....2

No preference (skip to VI).....3

B. How strong is your preference for the selected alternative over the other alternative? (Circle one number.)

Very mild.....1

Mild.....2

Strong.....3

Very strong.....4

III. A. Which of the following alternatives do you prefer more for EARLY EXTINGUISHMENT OF DEBT? (Circle one number.)

Ordinary income.....1

Extraordinary item.....2

No preference (skip to VII).....3

B. How strong is your preference for the selected alternative over the other alternative? (Circle one number.)

Very mild.....1

Mild.....2

Strong.....3

Very strong.....4

IV. A. Which of the following alternatives do you prefer more for SUPPLEMENTAL INFLATION ACCOUNTING DATA FOR INDUSTRIAL FIRMS? (Circle one number.)

Current dollar (general price level-adjusted).....1

Current (replacement) cost accounting.....2

No preference (skip to VIII).....3

B. How strong is your preference for the selected alternative over the other alternative? (Circle one number.)

Very mild.....1

Mild.....2

Strong.....3

Very strong.....4

V. A. Which of the following alternatives do you prefer more for INVESTMENT TAX CREDIT? (Circle one number.)

"Deferral".....1

"Flow-through".....2

No preference (skip to).....3

B. How strong is your preference for the selected alternative over the other alternative? (Circle one number.)

Very mild.....1

Mild.....2

Strong.....3

Very strong.....4

VI. A. Which of the following alternatives do you prefer more for IN-SUBSTANCE DEFEASANCE OF DEBT? (Circle one number.)

Treat in-substance defeasance as retirement of debt.....1

Do not treat in-substance defeasance as retirement of debt.....2

No preference (skip to II).....3

B. How strong is your preference for the selected alternative over the other alternative? (Circle one number.)

Very mild.....1

Mild.....2

Strong.....3

Very strong.....4

VII. A. Which of the following alternatives do you prefer more for MARKETABLE EQUITY SECURITIES? (Circle one number.)

At "market".....1

Lower of cost or market on a portfolio basis.....2

No preference (skip to III).....3

B. How strong is your preference for the selected alternative over the other alternative? (Circle one number.)

Very mild.....1

Mild.....2

Strong.....3

Very strong.....4

VIII. A. Which of the following alternatives do you prefer more for the STATEMENTS OF CHANGES IN FINANCIAL POSITION? (Circle one number.)

Cash basis.....1

Working capital basis.....2

No preference (skip to IV).....3

B. How strong is your preference for the selected alternative over the other alternative? (Circle one number.)

Very mild.....1

Mild.....2

Strong.....3

Very strong.....4

DEBRIEFING QUESTIONNAIRE

1. (a) Were any of the instructions unclear? (Circle one number.)

   1. Yes

   2. No (Skip to question 2.)

   (b) If so, please identify which part(s).

_____

_____

_____

_____

_____

_____

_____

_____

2. Approximately how long did it take you to complete the entire task?

   _____ minutes

3. How interesting did you find this experiment? (Circle one number.)

   Very dull.....1

   Dull.....2

   Interesting.....3

   Very Interesting.....4

4. Please indicate if for any of the eight accounting policy issues your most preferred alternative was not included in the given pair and briefly indicate your most preferred alternative.

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

5. (a) Were any of the definitions of the qualitative characteristics excerpted from the Statement unclear?

Yes.....1
No (Skip to question 6).....2

(b) If so, please identify the qualitative characteristics.

_____

_____

_____

_____

6. (a) On the whole, how helpful were the qualitative characteristics and their definitions in your choice of accounting alternatives in Task 3?

Very helpful.....1

Somewhat helpful.....2

Of little help.....3

Of no help.....4

(b) Which qualitative characteristics (if any) and their definitions were helpful?

(Identify the qualitative characteristics.)

_____

_____

_____

_____

(c) Which qualitative characteristics (if any) and their definitions were of little or no help? (Identify the qualitative characteristics.)

_____

_____

_____

_____

7. Have you read Statement of Financial Accounting Concepts No. 2?

Yes.....1

No.....2

8. If you have any comments about the experiment or the experimental materials, please indicate them here.

THANK YOU FOR YOUR PARTICIPATION.

VITA

Larry Glen Singleton was born the son of Mr. and Mrs. Tony G. Singleton, on October 19, 1955, in Alexandria, Louisiana. In 1973, after graduation from Clinton High School in Clinton, Mississippi, he enrolled at Louisiana State University. While an undergraduate at LSU he was a member of Acacia Fraternity and of the LSU marching and concert bands. He received a Bachelor of Science degree from the College of Business Administration with a major in accounting in May, 1978.

In August, 1978, he entered the Master of Science in Accounting program at LSU. While in the M.S. program he was elected to Beta Gamma Sigma. Upon receiving the master's degree in 1980, he entered the Doctor of Philosophy program. During his graduate program he served as a graduate assistant and an an instructor, teaching financial and cost accounting in the Department of Accounting. In the Spring of 1981, he was the recipient of the 1981 Lloyd F. Morrison Award, presented by the Accounting faculty to a graduate student excelling in teaching. He is now Assistant Professor of Accountancy at The George Washington University in Washington, D.C.

DOCTORAL EXAMINATION AND DISSERTATION REPORT

Candidate: Larry G. Singleton

Major Field: Accounting

Title of Dissertation: A Field Test of the Perceptions of the Qualitative Characteristics of Statement of Financial Accounting Concepts No. 2 By Practicing CPAs

Approved:

Bart P. Hartman
Major Professor and Chairman

Dean of the Graduate School

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Date of Examination:

October 21, 1985