An Application of Selected Communication Theory Concepts to Accounting Education.

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Louisiana State University and Agricultural & Mechanical College

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The Louisiana State University and Agricultural and Mechanical College
Ph.D., 1975
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AN APPLICATION OF SELECTED COMMUNICATION THEORY CONCEPTS TO ACCOUNTING EDUCATION

A Dissertation

Submitted to the Graduate Faculty of the Louisiana State University and Agricultural and Mechanical College in partial fulfillment of the requirements for the degree of Doctor of Philosophy in The Department of Accounting

by

John Harvey Salter III
B.S., Auburn University, 1963
M.S., Louisiana State University, 1970
December, 1975
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ABSTRACT

The importance of communication in the accounting process is emphasized in accounting literature, and research has been conducted which points out various relationships between accounting theory and communication theory. The purpose of this work is to explore ways in which selected communication theory concepts might be applied to college-level accounting education. This purpose is carried out by review of existing literature, theoretical application of concepts found in the literature to various aspects of accounting education, and personal interviews conducted at educational institutions to determine what activities are in use which might be considered to be applications of the theoretical concepts developed.

A model of the communication process is presented depicting two individuals in a communication environment, surrounded by stimuli from numerous sources. Each individual has transmitting and receiving capabilities and a mental filter. Each person's mental filter results from his own experiences and is therefore unique.
The communication process is influenced by limited transmission and receiving abilities, other elements (noise) present in the environment, and the ability of each mental filter to assign meanings similar to those intended by the other. Feedback can occur when one individual has opportunity to obtain stimuli from the other in response to messages previously transmitted. This model and these concepts form the basis for development of the remainder of the work.

Applications to accounting activity in general are discussed to provide additional background for development of applications to accounting education. Mental filter similarity is needed for accountants to be able to prepare messages from which recipients can interpret intended meanings. Both preparers and users of reports may need to take steps to compensate for insufficient filter similarity. In addition, preparers and users of accounting reports need to consider difficulties caused by the communication environment and limitations inherent in the transmitting and receiving abilities of the individuals involved. Feedback offers opportunities for evaluating communication effectiveness and for correcting miscommunication as it occurs.

College-level educational programs present opportunities to provide students with experiences upon which they can base communication efforts in the future.
Accounting literature emphasizes the need for educational programs to teach communication as well as accounting and the interviews reveal a number of methods actually in use to teach communication concepts and to provide opportunities for students to develop communication skills.

Providing mental filter similarity through accounting educational programs calls for at least a minimum amount of similarity in course and curriculum content at various institutions offering such programs. While no attempt is made to specify what the orientation and content of accounting programs should be, it is suggested that standards for planning and evaluating collegiate education in accounting at all levels could provide benefits through greater mental filter similarity in the future.

Communication theory concepts can also be applied to the instructional process itself. Information on student backgrounds and faculty awareness of communication difficulties resulting from mental filter dissimilarity, limited transmitting and receiving capabilities, and environmental factors, provide assistance in overcoming many communication difficulties. Communication with students, former students, employers, other educational institutions, and others with an interest in accounting
education can provide information for judging communication success in the classroom and evaluating overall program effectiveness.

This work demonstrates that communication theory concepts can be applied to accounting education on both theoretical and practical levels. It is not suggested that accounting courses and curricula can provide sufficient mental filter similarity and knowledge of communication techniques to eliminate problems as complex as those involved in communicating accounting information. It is suggested, however, that educational institutions are appropriate places for building the foundations needed for future communication activities.
CHAPTER I

INTRODUCTION

The importance of communication to accounting has been recognized, to varying degrees, in many publications relating to accounting activity. An indication of the growth of interest in this aspect of accounting is found by considering the number of items indexed under Communication in the Accountant's Index in recent years (see Figure 1). Although no effort has been made to verify consistency of classification in the Index, there appears to be an obvious increase in the number of publications on the subject of communication as it relates to accounting.

In 1938, W. A. Paton said, "The most important phase of the art of accounting is found in the periodic analysis and interpretation of accounts, the final result of which is the presentation of balance sheet, income sheet, tax return, and all special statements and reports for the use of management, investors, and others concerned." According to the 1962 research

FIGURE 1

Items Indexed Under Communication
In the Accountants' Index, 1961-73

<table>
<thead>
<tr>
<th>Year</th>
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Study by Sprouse and Moonitz, "Accounting supplies much of the comprehensive and dependable information that management needs to control and administer the resources in its charge efficiently and productively. It also supplies the data . . . to report to owners, creditors, government, and others with bona fide interests."²

Both of the above statements point to the importance of communication in various aspects of accounting. Each refers to the needs of management, or those who are responsible for administering and controlling resources. Each also refers to reporting for other parties, such as investors and government agencies, which have an interest in what the management group has done. The 1974 edition of Thacker's *Introduction to Modern Accounting* provides the following definitions emphasizing the importance of the communication element in these two areas of accounting activity:

"The term financial accounting involves providing information to decision makers such as investors and creditors outside the firm" and "The term managerial accounting refers to the activities of providing internal information for the use of management." 3

In 1966, the American Accounting Association's Committee to Prepare a Statement of Basic Accounting Theory defined accounting as "the process of identifying, measuring and communicating economic information to

permit informed judgments and decisions by users of the information."⁴ According to this definition, communication is a major objective of accounting activity.

Howard Ross goes even further by saying, "Accounting has been described as 'the language of business' which is a profoundly significant definition throwing light on the whole process. It establishes the fact that accounting is essentially a system of communication."⁵ The third edition of Meigs, Mosich, and Johnson's elementary accounting text states: "The underlying purpose of accounting is to provide financial information about any economic entity."⁶

The preceding quotations, along with numerous others that could be cited, reveal the emphasis placed on communication by writers in the field of accounting. Jordan takes note of the widespread discussions among accountants, government officials, academicians, and businessmen concerning basic postulates and principles of accounting. He observes that there has been very little agreement on these subjects but uses a number of


quotations to support the following observation: "Yet, within these groups there is remarkably widespread agreement that the idea of communication is fundamental in the accounting process." 7

**Communication Theory and Accounting Theory**

While a great deal has been written about communication as an aspect of accounting activity, a few authors have attempted to apply communication theory concepts to accounting theory.

In a 1962 article, Bedford and Baladouni suggest a communication theory approach to the development of accounting theory. They describe accounting as a process and accountants as communicators who observe events, encode messages and select channels for transmission to recipients. Those who receive these messages have the task of decoding and using them. The conclusion is reached that viewing accounting as a communication process can give direction to research activities in the development of accounting theory. 8

Li, in a 1963 publication, reviews communication theory literature and applies specific concepts to

---


accountancy. He concludes that many aspects of accounting do fit into a communication theory analysis. Specifically, Li deals with the semantic, or language-use, aspect of accounting communication.9

Baladouni's 1966 article points out the close relationship between communication theory and accounting and asserts, as in his earlier article written with Bedford, that a communication approach holds promise as a unifying agent in the development of accounting theory.10 He selects nine elements of communications systems which have particular significance to accounting. These are: events, observation of events, observer-communicator, production of statement about events, statement about events, interpretation of statement about events, user of statement about events, consequences stemming from user's action, and environment. From the accounting and communication point of view, he then emphasizes the importance of the observer-communicator (the source), the statement about events, and the users of statements about events (destination). As observer-communicator, the accountant is charged with selecting events and


making statements about them. To select properly, he must know the needs of the destination of the statements and without such knowledge, there is no reason to communicate at all.\textsuperscript{11}

The statement about events is viewed as simply a physical product, that is, an arrangement of linguistic code, containing a message which is output from the source and becomes input to the destination. The message sent by the source and the one received by the destination will depend on the environment, individual needs, and individual interpretations of the code symbols used in the message. Statements have no meanings but those given to them by the source and destination. The destination has the task of decoding the statement. To receive effective communication from the source, the destination must have knowledge of the code used and an awareness of the assumptions and concepts employed by the source. User actions which are at least partly based on the statement are also important aspects of the process. A statement has significance only if meaning is attached by the destination and some action is taken.\textsuperscript{12}

Loomis Toler's 1963 dissertation describes the relationship between accounting and communication theory.

\begin{footnotes}
\item[11]\textit{Ibid.}, p. 220.
\item[12]\textit{Ibid.}, p. 221.
\end{footnotes}
and emphasizes the potential usefulness of general semantics concepts to accountants. Art Guthrie's article in the June, 1972, Journal of Accountancy outlines S. I. Hayakawa's ideas on general semantics and relates them to accounting. His purpose is to illustrate that the application of these ideas might result in more effective and understandable accounting activity. The conclusion is drawn that since accountants produce reports (maps) of activity (territory) there should be different maps for people with differing needs with respect to the territory.

Each of the works mentioned above builds a link between accounting activity and elements of communication theory. Bedford and Baladouni deal with a very broad view of communication while Li, Toler, and Guthrie deal with more specific concepts and applications.

The problem being addressed in this work is how the effectiveness of communication of accounting output might be improved through the educational processes which are intended to prepare students for future careers in the preparation or use of such output.


If communication is an essential element of accounting activity, it is important for accountants and users of accounting's output to be able to communicate effectively with each other. Those who prepare themselves to be accountants need to acquire knowledge and skills in communication if their other abilities are to be of maximum usefulness. Likewise, those who will be recipients of accountants' attempts to communicate will need certain knowledge and skills to be able to interpret any message received.

Objectives

The overall objective of this work is to develop some possible strategies for application of communication theory concepts to the educational processes which are intended to prepare both accountants and non-accountants for careers dealing with accounting-generated data. Intermediate objectives include presenting a model and discussion of selected communication theory concepts, and relating these concepts to specific accounting situations and educational processes.

It is hoped that these discussions and recommendations might prove beneficial to future development of accounting courses and curricula. It is also hoped that additional thought and research might be stimulated through this effort, thereby providing additional concepts
and evidence upon which to base future developments in accounting education.

Organization of the Study

In Chapter II, literature from the field of communication is reviewed with special emphasis upon communication limitations and environment and the concepts of meaning and feedback. This discussion includes several models representing various aspects of the communication process. From this literature, a combined model is developed and discussed to emphasize the selected elements and their importance to communication success. The primary objective in developing this model is to provide a reference point for discussion of accounting activities and educational needs in relation to the selected communication elements.

The elements discussed with the model are related to accounting activity in Chapter III. Several possible applications of communication concepts to internal and external reporting are developed to illustrate the importance of the selected communication theory elements to specific accounting activities.

Chapter IV relates the concepts and relationships discussed in Chapters II and III to college-level accounting education. Emphasis is placed upon demonstrating the relevance of communication theory concepts
to the teaching process, to evaluation of educational programs, and to helping students to become better communicators through accounting courses and programs.

The emphasis in Chapter V is upon possible strategies for applying the various concepts discussed earlier to educational programs in accounting. Information obtained from interviews with colleges and universities is combined with previously discussed concepts and ideas from existing accounting literature to form the basis for a number of recommendations of possible actions. The last chapter contains a summary and some general conclusions drawn from the entire work.

Limitations

This work does not provide definitive solutions to the many problems arising in the communication of accounting data or in the education of accounting students. Only a limited number of communication theory concepts are included and a great deal more could be said about each of these. In addition, only a few applications to accounting and educational activity are attempted. The recommendations and conclusions are intended only to be "possible strategies" for inclusion in accounting programs and are not attempts to provide comprehensive solutions to any particular problems which might arise.
CHAPTER II

A MODEL OF THE COMMUNICATION PROCESS--MEANING AND FEEDBACK

Introduction

The objective of this chapter is to provide background information on selected communication theory concepts for application to accounting and accounting education in subsequent chapters. Literature is reviewed to introduce the communication process in general and to provide a basis for discussion of various elements of interpersonal communication. Several models are discussed in order to emphasize and clarify selected concepts. A "Combined Model" is then developed to include all of the selected elements, re-emphasize their importance, and provide a reference point for later use.

While there are many aspects of communication theory which might be explored and related to accounting activity, only a few selected elements of interpersonal communication are discussed in detail here. Figure 2 depicts Shannon and Weaver's model of a general communication system.¹

Source: Shannon and Weaver, *The Mathematical Theory of Communication*, p. 5 (See Footnote 1).
The main elements of this model are: 1) an information source to produce messages; 2) a transmitter to produce a suitable signal for transmission; 3) the channel which is the medium used to convey the signal from the transmitter to the receiver; 4) a receiver; and 5) a destination, defined as the person (or thing) for whom the messages are intended. Noise is anything which disturbs the signal during the process.2

Weaver defines the term communication very broadly "to include all of the procedures by which one mind may affect another."3 He then asks the following three questions about communication:

Level A. How accurately can the symbols of communication be transmitted? (The technical problem)

Level B. How precisely do the transmitted symbols convey the desired meaning? (The semantic problem)

Level C. How effectively does the received meaning affect conduct in the desired way? (The effectiveness problem)4

For the present, emphasis is placed upon the delivery of desired meaning, or the Level B problems. Level A problems are related to technical difficulties involved in the transmission of symbols of communication.

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2Ibid., pp. 4-6.
3Ibid., p. 95.
4Ibid., p. 96.
and are not considered here. Level C problems, relating to attempts to influence or bring about a particular reaction in the recipient, are also not explicitly included in this discussion.

Meaning

According to Berlo: "The concept of meaning is central to communication. It can be argued that the major concern of communication is meaning." In their text on human communication, Myers and Myers say: "Communication with others involves an attempt to share our meanings with them by calling up inside another person a classification and experience reaction similar to ours."6

Words and other symbols of communication do not have meanings within themselves. Hayakawa says: "The meanings of words are not in the words, they are in us."7 This is consistent with Berlo's conclusion that "Communication does not consist of the transmission of meaning. Meanings are not transmitted, nor transferable. Only


messages are transmittable, and meanings are not in the messages, they are in the message-user."\(^8\) Colin Cherry states, "Words are signs which have significance by 'convention', and those who do not adopt the conventions simply fail to communicate."\(^9\)

Ogden and Richards present a triangle similar to the one in Figure 3 which illustrates the point that words have meanings only indirectly, through human minds.\(^{10}\)

![Figure 3](image.jpg)

**FIGURE 3**
Ogden and Richards Model

Source: Ogden and Richards, *The Meaning of Meaning*, p. 11 (See Footnote 10).


The solid lines represent more or less direct connections from the thought processes to the referent and to the symbol which the individual uses to represent the referent. The dotted line illustrates that there is no direct relationship between the referent and the symbol. Such a relationship exists only indirectly, through the thought process.11

The diagram in Figure 2 is used in the development of Shannon's mathematical theory of communication, the primary purpose of which is to deal with the technical, or Level A, problems of communication. However, Weaver points out that the model can be applied to Level B problems by adding a "semantic receiver" between the receiver and destination and including "semantic noise" between the information source and the transmitter. The job of the receiver is to decode signals from the channel while the job of the semantic receiver is to decode the message and assign meaning to it for the destination. The semantic noise represents unintentional distortions of meaning created by the source.12

Wilbur Schramm has provided models of the communication process which are used here to develop an analysis of the difficulties involved in delivering desired

11Ibid., pp. 10-12.
12Shannon and Weaver, Mathematical Theory of Communication, pp. 115-16.
meanings. Depicted simply (See Figure 4), the communication process is composed of a source, an encoder, the signal (or message), a decoder, and a destination. The source operates with a background of certain accumulated experiences. Likewise, the destination has a "field of experience" which may or may not be similar to that of the source. The overlap in the oval-shaped "fields of experience" in Figure 4 represents the similarity of the experiences of the parties involved.\textsuperscript{13}

The source can represent an individual who wishes to communicate and the encoder, or encoders, would be his means of preparing a message for the destination. The codes selected might include speech, written symbols, music, etc. The signal itself would be the sounds, visible signs, electronic impulses, or other means by which transmission could take place. The destination is the recipient of the communication attempt and needs decoders to be able to receive the signal and subsequently assign meaning to what is received.

In emphasizing the importance of delivering intended meaning, the overlap of the "fields of experience" in the model is of particular significance. If those who are attempting to communicate have a great deal in

FIGURE 4
"One-Way" Schramm Model

Source: Schramm, "How Communication Works," p. 6 (See Footnote 13). The "One-Way" designation is the author's and not Dr. Schramm's.
common, in terms of accumulated experiences, there is a great deal of overlap in the ovals in the model. In such a case, the delivery of intended meaning should be relatively easy. On the other hand, in Schramm's words, "If the circles do not meet—if there has been no common experience—then communication is impossible. If the circles have only a small area in common—that is, if the experiences of source and destination have been strikingly unlike—then it is going to be very difficult to get an intended meaning across from one to the other."

This model seems consistent with that of Shannon and Weaver with the encoder and decoder serving as the "semantic devices" suggested by Weaver and discussed earlier. Schramm's approach de-emphasizes the technical problems in communication and stresses the human aspects. His emphasis upon the "fields of experience" illustrates the importance placed on the human factor in coding and decoding messages.

Feedback

The model presented in Figure 4 does not explicitly recognize interaction among the parties involved and communication is depicted as a one-way street. Another model is presented by Schramm (See Figure 5) which illustrates the concept that the source and destination

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14 Ibid., p. 6.
FIGURE 5
"Two-Way*" Schramm Model

Source: Schramm, "How Communication Works," p. 8 (See Footnote 13). The "Two-Way" designation is the author's and not Dr. Schramm's.
generally act as both encoders and decoders, and communicate with each other.\textsuperscript{15}

This model of two-way communication emphasizes the importance of the interaction among parties which is present in many communication situations. In referring to the two parties in the model, Schramm says: "One is constantly communicating back to the other . . . . The return process is called 'feedback', and plays a very important part in communication because it tells us how our messages are being interpreted."\textsuperscript{16}

According to Myers and Myers, "The term feedback refers to that part of our communication behavior which pays attention to the effect of a message so we can know what to do next."\textsuperscript{17} Berlo says, "Feedback provides the source with information concerning his success in accomplishing his objective. In doing this it exerts control over future messages which the source encodes."\textsuperscript{18}

Feedback, then, aids a communicator in evaluating how well he has communicated. How well has the intended meaning been re-created in the recipient of a message?

\textsuperscript{15}\textit{Ibid.}, p. 8.

\textsuperscript{16}\textit{Ibid.}

\textsuperscript{17}Myers and Myers, \textit{Dynamics of Human Communication}, p. 7.

\textsuperscript{18}Berlo, \textit{The Process of Communication}, pp. 111-12.
What efforts are needed to improve the similarity of interpretation given to past, present and future messages? Berlo points out that person-to-person type communication causes little difficulty in obtaining feedback but other types of communication activity give rise to public opinion polls, rating services, and other research efforts to obtain feedback.\textsuperscript{19}

The Mental Filter

A shortcoming of the presentation in Figure 5 is that the significance of the "fields of experience" is not emphasized as well as in the "one-way" model in Figure 4. Before attempting to present a model for use in the remainder of the present work, the importance of an individual's "mental filter" and its relationship to the "fields of experience" concept will be discussed.

Lesikar treats the internal communication processes of an individual in detail. He depicts a communication environment with innumerable signs and symbols. Some of these signs and symbols (stimuli) are picked up by human sensory perceptrons and pass through the nervous system to the "mental filters". Meanings are attached to stimuli received and the make-up of the filter itself is altered by these meanings. Responses formed in the filter and transmitted into the environment become a

\textsuperscript{19}Ibid., p. 114.
part of that environment and may be picked up by other sensory perceptors to repeat the entire process.\textsuperscript{20}

The "mental filter" concept seems analogous to the individual's "field of experience" as discussed earlier. In the following discussion, references to the make-up of the "mental filter" and its importance to the communication process will be intended to apply also to the "fields of experience" concept.

Lesikar emphasizes that all filters differ because they are made up of the accumulated experiences of individuals and such experiences are never identical. Differences in filters result in different meanings being assigned to a given stimulus from the environment.\textsuperscript{21}

**A Combined Model**

The importance of transmitting and receiving devices, mental filters, the communication environment, and feedback is discussed in relation to a number of accounting activities and possible educational strategies in subsequent chapters. Figure 6 integrates these elements into a Combined Model to facilitate additional discussion of their interrelationships and importance in interpersonal communication and to provide a point of reference for use in later discussions.


\textsuperscript{21}Ibid., p. 20.
FIGURE 6
Combined Model

Transmitters

Mental Filter

Receivers

Transmitters

Mental Filter

Receivers
In this model, the two large circles represent two individuals within a communication environment. The small arrows represent the innumerable stimuli that could be present in a particular communication situation. Sights, sounds, odors, tastes, and feelings, such as heat or cold or dampness, combine to create an unlimited set of elements which might be present. The two longer arrows illustrate the possibility of message or feedback transmission from each of the individuals to the other.

Each individual in Figure 6 has a physical make-up which is represented by the outer rings of the circles and labeled as receiving and transmission devices. The receiving devices would include any means, such as eyes, ears, and sense of touch, by which stimuli might enter the mental filter through the nervous system. The transmission devices would include the mouth, eyes, and any other means of generating stimuli into the environment. The center circle in each case represents the individual's mental filter, or accumulated experience. This filter assigns meaning to stimuli received and initiates whatever response seems appropriate in the situation.

**Discussion of the Combined Model**

At this point, some of the concepts presented earlier are related specifically to the Combined Model (Figure 6) in order to build a conceptual foundation for
use in the remaining chapters. In any attempt to communicate, or convey a desired meaning, each element in the model assumes an important role.

The receiving devices are limited in the number of stimuli that can be "sensed" and transmitted to the mental filter. Only a small portion of the total occurrences in a particular environment will be picked up by an individual in that environment. Wendell Johnson emphasizes, "All in all, the degree to which we can know directly, through sensory avenues, the world outside . . . is impressively restricted."22 Weinberg says, "What one will abstract—perceive—at any given moment depends on many factors. Some of them are:
(1) Our position in space; we cannot see all sides of an object at once. (2) The structure of the perceiving organ. (3) The psychophysiological condition of the organ and the entire organism in which it is functioning."23

These three factors all deal with the ability of an individual to sense stimuli in the environment. The first two are primarily physical limitations on how much can be seen or heard or "sensed" in other


ways. The third factor brings the condition of the "entire organism", or the individual as-a-whole, into the perception process. In Weinberg's words, "Motivation is very important; we tend to see, hear, taste, what we want and expect, with past experience, language patterns, and emotional factors playing a large role in what is finally abstracted."\(^{24}\)

In terms of the present model, the make-up of the mental filter is influential, along with the receiving devices, in determining what will be picked up from the communication environment. In addition, the mental filter determines what meanings will be assigned to whatever is received.

As mentioned earlier, each individual's mental filter is the result of all of the accumulated experiences of that individual. If words and other stimuli in the communication environment do not have meanings within themselves, communication takes place only when there is sufficient similarity in the mental filters involved to allow the recipient to assign a meaning similar to that intended by the communicator.

Communication problems can also arise from limitations inherent in transmitting devices. It is not possible to transmit everything that is relevant to a particular message any more than it is possible

\(^{24}\text{Ibid.}\)
to receive all that is present in the environment through the receiving devices. What will actually be transmitted is determined by both the thought processes (mental filter) and the capabilities of the transmitters available in a given situation. Successful communication will depend upon selection of messages and means of transmission which can be both received and interpreted by the intended recipient.

Feedback can be used to evaluate communication success and to allow for future correction of miscommunication. In simple two-person communication situations, feedback is present and is possibly very plentiful. Direct feedback is also possible when more than two parties are involved but there is opportunity for interaction among the participants. To include this situation in the model, as many circles as necessary could be added to represent additional people.

When there is any form of impedance in the flow of stimuli among the parties to communication activity, difficulties can arise from at least two causes. It will be more difficult for messages to be transmitted and received without distortion and the ability to obtain feedback will be reduced, thereby limiting the corrective actions which might be taken to insure a better understanding of the intended meaning. In these situations, conscious efforts may be required to overcome such limitations and difficulties.
In conclusion, this model is an attempt to illustrate the role of sensory perceptors, the mental filter, and the communication environment in the process of human communication. The importance of the mental filter in determining the meanings given to messages has been stressed along with the role of feedback in the clarification of meaning and measurement of communication success. Specific concepts discussed in conjunction with this model are used to develop the remaining chapters, where they are discussed in relation to accounting activity in general and then to accounting education in particular.
CHAPTER III

THE COMBINED MODEL AND ACCOUNTING ACTIVITY

Definitions

As mentioned in Chapter I, the American Accounting Association's Committee to Prepare a Statement of Basic Accounting Theory defined accounting as "the process of identifying, measuring, and communicating economic information to permit informed judgments and decisions by users of the information."¹ This definition, with special emphasis on its communication aspects, is assumed to be appropriate for the remainder of this work.

The term "report" is used here to refer to all attempts to communicate accounting data, regardless of what form the attempt may take. These "reports" may be from accountants to other accountants or to non-accountants and they may be formal or informal in nature.

"Internal reporting" is used in the following discussions to refer to any report intended to communicate

with individuals within an organization. This is specifically intended to include the organization's accountants and its managers—those individuals who have primary responsibility for operations and decision making.

Internal reporting can take many forms and is used in accomplishing many objectives. In discussions throughout the remainder of this chapter, emphasis will be placed upon internal reports prepared for two broad purposes as outlined by Horngren: 1) reports for use in planning and controlling routine operations, and 2) reports for use in formulating major plans and making non-routine decisions. Such reports may represent communication attempts among accountants, from accountants to managers, or from managers to accountants.

"External reporting" is intended here to refer to communication with those who have an interest in the activities of an organization but are not directly involved in its day-to-day operations. In this chapter, external reporting is used specifically to refer to reports for actual and prospective stockholders, for actual or prospective creditors, for regulatory agencies, and for taxing authorities.

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There is no intent to specify exact boundaries for internal and external reporting, or for routine and non-routine decisions. These classifications are used for sub-dividing discussions in the remainder of this chapter and are defined primarily for that purpose.

**Objective**

In this chapter, the concepts developed along with the Combined Model in Chapter II are related to some specific types of accounting communication. The importance of the mental filter in assigning meaning, the importance of individual transmitting and receiving capabilities, and the roles of the environment and feedback are applied to selected illustrations of internal and external reporting activity as defined in the preceding paragraphs. While it is not the purpose of this chapter to suggest solutions to all of the communication problems involved in internal or external reporting, observations are made relative to certain specific communication situations and actions which might assist in reducing or removing some of the possible difficulties.

The primary purpose of the chapter is to illustrate the importance of the selected communication concepts to specific areas of accounting-related activity for later reference. The foundations developed here and in Chapter II are used in Chapter IV to examine selected
aspects of college-level accounting education and its preparation of students for careers in which they must be effective communicators.

The "Mental Filter" and Accounting Reports

For users of accounting reports to be able to interpret those reports and obtain meanings similar to those intended by the accountants who prepare them, there must be similarity in the make-up of the mental filters of the report preparers and users. As pointed out in Chapter II, if little or no common background experience is present, communication will be difficult, if not impossible.

Internal Reporting

In internal reporting situations, it is possible for an organization to employ, either intentionally or by chance, individuals who have a great deal in common before they become members of the organization. Similarity in background experience may be present because of the influence of geographical origins, social customs, political beliefs, educational backgrounds, and numerous other factors.

There are also opportunities for preparers and users of reports to obtain additional common experiences upon which communication attempts can be based. Being employees of the same organization should provide a
number of similar interests and goals as well as common activities to aid development of similarities in the mental filters of those individuals involved.

In spite of background similarities and experiences obtained within the organization, the mental filters of individuals are never identical and therefore meanings assigned to words and other stimuli will not always be the same. Those who are involved in internal communication activities should consciously attempt to improve their ability to communicate with each other. More specifically, accountants and those who use accounting data need to work together to increase the similarities in their mental filters.

It should be noted at this point that much of the internal reporting activity carried out within many organizations will be from accountants to other accountants. When an organization is large enough, accounting functions are divided among various individuals or groups who may work in widely dispersed locations. Likewise, those non-accountants with whom communication is required may be in various physical locations. As physical separation occurs, the importance of similarity in mental filters is increased because of reduced possibilities of immediate feedback to the preparer of a message. In other words, when the preparer of a message is not in a position to obtain immediate feedback from its user, he needs more
complete knowledge of what information the user needs and how that user will respond to various messages which might be sent.

Regardless of the physical locations of the parties to a communication attempt, the meanings intended by preparers of messages and those assigned by its recipients can be brought closer together in at least two basic ways.

1--The preparer of a report can consider the mental filter of the user. What is the background knowledge of the user and what are the experiences upon which he can call in order to interpret the report? What factors of specific need are important to the recipient? Basically, what does the user want and need to know and how can that knowledge best be provided to him through communication?

2--The user can consider the mental filter of the preparer and make efforts to narrow any differences which might exist. What is the background of the preparer and from what viewpoint has he encoded the message? What is he likely to mean by specific terms used? Generally, what is he trying to get across in his message?

The following 1971 quotations from James H. Combes, controller of N.C.R. Co., seem to touch upon both of the preceding suggestions. "Accountants must, therefore,
understand the many varied uses of the information they provide. ... To be effective, accounting and financial information must be translated into the non-accountants' own language and must be geared to their internal set of values." On the other hand he suggests that accountants "develop programs to be presented to various levels of management explaining the significance and usefulness of accounting information and reports."4

Harmeyer, writing in 1973 about internal auditing, points up a need for auditors and auditees within an organization to get to know each other personally before they can have "open and frank dialogue."5 He observes that internal auditors need "a knowledge of psychology, sociology, communications, and anything else that contributes to a better understanding of people."6

McMillan, in a 1972 article, describes internal accounting as an "integrated communication system" and points out needs related to this system. Examples of these needs include the determination of: what information is needed from the environment; what information


6Ibid.
can be collected and transmitted to those who will use it; how to collect the information; who needs the information; and how well the various users can interpret what is transmitted to them.\(^7\) McMillan's last point seems to emphasize the importance of a report recipient's mental filter, and its similarity with the preparer's knowledge and viewpoint, to effective communications. Michael Reiter, a non-accounting manager, has observed that the accountant's "greatest challenge lies not in gathering the varied data, not in analyzing for hidden trends, but rather in being able to transmit this data with all its pertinent meanings to management."\(^8\)

**External reporting**

The need for similarity in mental filters and the importance of a report preparer knowing about the potential user, as discussed in the preceding section, are equally relevant to external reporting. When considering comparability of mental filters, the greatest differences between internal and external reporting seem to arise from less likelihood of common background between report preparers and users and less opportunity


for either to determine first-hand what the other's background, needs and viewpoints are.

Reports for actual and prospective stockholders have traditionally taken the form of published financial statements, including balance sheets and statements of income, retained earnings, and funds-flow. These statements have evolved, along with other accounting activities, to meet information needs of various interested parties. However, significant differences may exist between the actual knowledge and experience upon which accountants base these statements and that used by the statements' recipients.

Knowledge about the mental filters of actual and potential stockholders is obviously difficult to obtain because of the variety of individuals or groups who might be investors. Since it does not seem possible for accountants to prepare reports that would convey similar meanings to all members of such a diverse group of users, it seems reasonable to suggest that statement users should attempt to learn what meanings are normally intended by the various communication stimuli included in accounting reports. It is desirable for many actual or potential investors to obtain assistance from someone who has the necessary knowledge to assist in the interpretation of accounting reports.
The preceding paragraph is not intended to suggest that accountants, as report preparers, can do nothing to assist in the interpretation process. Knowledge of the needs and viewpoints of stockholders and their advisors can assist in the preparation of messages which will meet these needs with as little "noise", or interference, in the communication process as possible. As mentioned in Chapter II, the needs and attitudes of recipients of communication attempts affect what they will perceive, or pick out, from the communication environment. Messages prepared with these needs in mind should be received with greater interest than would otherwise be the case. Of course, determining the needs of stockholders, taken as a group, may be as difficult as determining the make-up of other parts of their mental filters.

Clear specification of the purposes and limitations of various types of external reports, coupled with publicity to inform those involved about such purposes and limitations, should provide a point of common reference for both preparers and users. This sort of specification would guide preparers in knowing what to include in reports and would assist users in determining what should and what should not reasonably be sought in specific accounting statements. Interpretation should also be
assisted by consistency in the ways in which data are presented and by comparability of methods and terms employed in report preparation.

The following will serve as an illustration of some of the points made earlier. In 1971, two readability formulas were used by Smith and Smith to analyze footnotes to financial statements. The conclusion was reached that the words used and ways in which they were used made messages contained in such footnotes difficult to understand for all but a limited group of people. All of the notes rated as either "difficult" or "very difficult" by the Flesch formula, indicating college level or college graduate level reading difficulty. The results were basically similar using the Dale-Chall formula, with the notes of about 86 per cent of the companies rating at the college or graduate level and 14 per cent at the upper high school (eleventh and twelfth grade) level.9

Communication problems of the types suggested by this research on readability might be reduced in several ways, including the following:

1—Accountants could employ less technical terminology and simpler sentence structure to

facilitate communication. Disclosures should then be readable by individuals with lower reading skill levels while communication would be made easier for those who might possess the necessary skill but perhaps not have sufficient time or interest to read more difficult material.

2--Those who use statements could learn to read technical material of the type included in order to be better able to obtain the meanings intended by their preparers.

3--Both of the above suggestions could be complemented by consistency in the use of terms and phrases in making disclosures. Consistency over time and among various reporting entities should be of assistance to preparers in selecting words and phrases for use in reports. Interpretation should become easier as users are able to learn the intended meanings of technical terms and phrases through their repeated and consistent use.

4--The difficulty level, or some other guideline, could be published along with the statements to guide potential readers in determining whether they have sufficient background or ability to attempt to interpret the intended meanings. If the material is not written for
interpretation by those with less than a college degree, or its equivalent in terms of reading ability, those who do not possess the necessary skill could seek advice from someone who does have such skill.

The above suggestions are basically intended to relate to the readability of footnote disclosures accompanying external reports, as studied by Smith and Smith. However, many of the concepts involved in these suggestions seem applicable to the over-all content of external reports.

Simplification of the words and phrases used in financial reporting might not be an easily accomplished goal because the "language" of accounting may differ from that of the general population and therefore may require the use of a number of technical terms. However, report preparers should be aware of the communication problems arising from the use of these terms and phrases and should consciously attempt to minimize such problems. At the same time, consistency of presentation and word usage could offer report users greater opportunities to learn the technical language of accounting.

Haried seems to touch on these points in a 1972 research report in which he reaches the conclusion: "Potential semantic problems exist in external accounting communication, two of the major contributing factors
being (1) attempts to assign technical meanings to words that convey different meanings in ordinary usage or in other fields, and (2) insufficient standardization of terms used in financial reports.¹⁰ Flesher makes a related point by saying: "Presently, accounting terminology is in a state of flux. For almost every financial statement item there are at least two terms in common use."¹¹

Specification of the minimum level of accounting knowledge needed should also tend to reduce some of the communication problems involved in interpreting external reports. Those who do not have the required knowledge or skill would be made aware of their need for advice in evaluating reported data. In addition, there would be guidelines for those who want to try to obtain the accounting knowledge required.

The preceding discussion of external reporting dealt with reports intended for actual and potential stockholders with particular emphasis on problems resulting from the diversity of the mental filters of individual investors. The same observations would be relevant for


individuals such as bondholders and employees who have interests in the various reports issued by an organization.

Reporting to large institutional investors, underwriters, regulatory agencies, and taxing authorities, while also classified as external reporting under the definition being employed here, takes on some of the characteristics of internal reporting. These report users are better able to let their information needs be known to report preparers and may even require that specified data be reported in a particular format or on a standardized form.

In conclusion, the mental filters of accountants and internal and external report users are dissimilar because of variations in their experiences, educational backgrounds, wants, and needs. Effective communication depends upon similarity in the mental filters of preparers and users of reports and this similarity can usually be increased by the efforts of both parties. Each can strive for increased understanding of the needs, viewpoints, background, and language of the other.

The Reporting Environment and Transmitter-Receiver Limitations

The communication environment is filled with an infinite number of stimuli of various kinds and each individual's ability to generate and/or receive in this environment is limited. Any message must compete with
Innumerable other elements in order to be received and interpreted. Since it is not possible to say everything about any subject in a report and, likewise, it is not possible for an individual to "take in" all of the stimuli available, awareness of the problems created by individual transmitter and receiver limitations and competing elements in the environment is an important aspect of communication activity for report preparers and users alike.

In internal reporting situations, a number of environmental factors might influence the meanings assigned to messages. The physical locations of report preparers and users and the numerous competing sources of stimuli are among the factors to be considered as communication attempts take place. By avoiding various barriers to communication and preparing reports which are easily read and interpreted, accountants can improve the likelihood that their reports will be received and properly understood. Bergwerk discusses this concept in a 1970 article in which he says: "There are obvious communication problems when the recipient of a report is not familiar enough with terminology, implicit assumptions, or inherent limitations of accounting statements. Less obvious and perhaps more serious communication
problems exist when reports demand too much time and concentration from the reader.12

Reports need to be comprehensive enough to meet the recipient's needs and yet concise enough to allow him to obtain needed information. The form or appearance of a report may be an important factor in how well it is examined and understood. Bergwerk suggests the use of "highlighting" to call attention to the most significant data. He also calls attention to benefits derived from the use of charts and graphs in reports.13

The same general observations would apply to external reporting situations except, as discussed earlier, the needs, circumstances, and abilities of external report users are generally less well defined and more varied than in internal reporting.

Feedback

Feedback, or two-way communication, provides opportunities for evaluating how well the message contained in a report has been interpreted by the report user and how well the message meets the user's information needs. The ease with which feedback messages can be obtained and interpreted varies greatly. As with any


13Ibid., pp. 48-53.
message, transmission, reception, and interpretation will depend upon the mental filters and physical limitations of the parties involved and their interaction within the communication environment.

Internal reporting situations provide the greatest opportunities for effective feedback when the recipient of a message has an opportunity to ask questions for clarification and the preparer can observe the user's actions resulting from the message. When the environment precludes "face to face" communication, formal feedback systems and informal efforts on the part of both preparers and recipients of messages can provide a valuable interchange of feedback data.

Obtaining feedback on external reports is a problem of widely varying proportions. Preparers of specialized reports for specific users can seek feedback from those users through a return report or by observing the actions which seem to result from the report. Recipients of such reports can inform the preparers as to how well the report meets their information requirements.

When general purpose reports, such as income statements and balance sheets, are prepared and distributed widely, feedback activity becomes difficult. However, users and groups of users such as the Institute of Chartered Financial Analysts and Robert Morris Associates, can let it be known when reports do not provide needed
information. A major reason for establishment of the Accounting Principles Board (APB) and subsequently the Financial Accounting Standards Board (FASB) was dissatisfaction of users with external report data.

Those who prepare general-purpose external reports can actively seek feedback through various types of research activity and by soliciting comments from users relating to such matters as clarity, completeness and unmet information needs. Comments made by users on current issues before the FASB, the SEC and other groups which study reporting activities can also provide feedback to report preparers.

**Summary**

To summarize, consideration should be given to several factors in order to enhance the effectiveness of both internal and external reports:

1) The mental filters of the parties involved, including their information needs and the knowledge and experiences upon which they will draw in assigning meaning to a report,

2) The impossibility of communicating everything about the subject,

3) The distortions caused by interactions within the communication environment, and

4) The potential that feedback has for reducing the difficulties introduced by other factors.
Again, it should be emphasised that this chapter does not identify all of the communication problems involved in reporting activities of accountants nor are the actions suggested intended to be all-inclusive or even applicable to all situations. The basic purpose has been to show ways in which various communication concepts might be applied to the reduction of selected reporting problems. In the following chapter, the role of the educational process is discussed in light of the ideas presented here in the hope that insights might be gained into making business school graduates better communicators.
CHAPTER IV

COMMUNICATION THEORY AND ACCOUNTING EDUCATION

Purpose

"The purpose of accounting education is to prepare students for careers in accounting and in related fields, and to prepare them to deal effectively with the problems they will face as practicing members of their profession and as responsible citizens of the social and economic community in which they live." ¹ The development of this chapter is based on the assumptions that communication is a primary objective of accounting and that college-level educational programs should attempt to prepare students to be effective communicators. The concepts developed in the earlier chapters are applied here to accounting education in three basic ways by emphasizing:

1. The importance of having students acquire basic knowledge of the elements of communication and how to use such knowledge.

2. The importance of developing similarities in the mental filters of those who will prepare and use accounting reports.

3. Possible applications of communication theory concepts to the teaching of students and the evaluation of programs.

**Communication Knowledge and Skill**

The need for accountants to acquire communication skills has been pointed out on many occasions. In the study by Roy and MacNeill, the subject "Written and Oral English" received a composite ranking of number one in importance to a beginning CPA. There were fifty-three possible choices in the areas of accounting, mathematics, business, law, and general studies. The number one ranking was true of all groups responding, including educators, executives, government accountants, and CPAs in auditing, tax, and management services. Roy and MacNeill reach the following conclusion: "To the CPA the ability to express himself well is more than the hallmark of an educated man, it is a professional necessity." The "Beamer Committee" report, dealing with education and experience requirements for CPAs, reinforces the preceding

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3 Ibid., pp. 218-19.
quotation by saying: "Effective communication, both written and oral, is an indispensable skill of the professional." Donald J. Hart alludes to a shortcoming of accounting education in a 1969 article: "Oral and written reports must receive substantially greater emphasis than customarily is given in accounting courses." While most colleges and universities impose certain basic English requirements upon their students, it seems appropriate to suggest that instruction in communication theory should also be provided.

Roy and MacNeill suggest that it is the responsibility of all faculty members to stress the importance of a student's ability to use the English language, regardless of what course of instruction may be involved. It is suggested here that this responsibility extends beyond use of the English language to include awareness of such communication theory concepts as the mental filter, meaning, feedback, and limited transmitting and receiving capabilities. It should also be noted that many reports are most effectively presented in charts, graphs, pictures,


6Roy and MacNeill, Horizons, p. 222.
and other forms which may employ little or no "English" in attempting to convey their messages. Improving the individual student's awareness and understanding of the problems involved in communication activity in general should increase the general level of communication skill among an institution's graduates. Some of the numerous techniques which might be employed within the classroom environment in attempting to improve students' ability to communicate effectively are discussed in the following chapter.

**Mental Filter Similarities**

An individual's mental filter is the result of all of his accumulated experiences and determines the meanings he assigns to stimuli received from a communication environment. The importance of the mental filter in internal and external reporting situations is discussed in Chapter III. The purpose of this section is to consider how the content of an accounting educational program and its influence on students' mental filters might affect the communication effectiveness of those students.

Completing accounting courses influences the filters and therefore the future abilities of students to communicate among themselves and with others who possess similar knowledge of accounting concepts and activities. This suggests that providing similar background experiences for accounting majors and non-majors at any particular
institution should improve their capacity for future communication with each other. In other words, when both majors and non-majors take the same basic courses and there is consistency in course content among various sections offered, the mental filters of these students should have more in common than if non-majors take separate courses, there is a lack of consistency among sections, or both. For the same reasons, similarity of course content at different colleges and universities should promote filter similarity and effectiveness in accounting communication in society as a whole.

This is not intended to suggest that similarity or uniformity is the only appropriate consideration in developing course content or even that it is the most important. However, the importance of communication in accounting activity and the role of the mental filter in the communication process does suggest that such similarity is important and that it should be considered as courses and curricula are developed.

At this point, some of the needs of accounting students and some possible approaches to meeting these needs are developed further. For this purpose, the discussion is divided to consider the needs of non-majors and then of those students who major or specialize in accounting.
Mental Filters of Non-Accounting Majors

Knowledge of accounting may be important to a non-accountant for any number of reasons but many of these seem related to a need to communicate with accountants. Such books as Accounting for the Financial Analyst,7 The Financial Executive and the New Accounting,8 and Accounting Fundamentals for Nonfinancial Executives9 are illustrations of attempts to provide background information to individuals who work with accountants and accounting reports. The following quotations are from the first chapter of one of these books.

... accounting and finance are the primary tools for reducing business problems and opportunities to a common denominator, setting goals, measuring results, and making decisions.

An understanding of the basic concepts of accounting and finance is crucial to the successful performance of every executive or businessman, whether he likes it or not.10

Books such as these and regular interaction with accountants provide many non-accountants with opportunities


10Ibid., p. 1.
to accumulate sufficient knowledge to be able to communicate effectively with accountants and interpret their reports.

It is assumed that those individuals who enroll in accounting courses need to acquire knowledge for use in future endeavors. Since most non-majors take only a limited number of accounting courses, opportunities for obtaining a great deal of detailed knowledge are limited. Just what these students should be taught and their needs, as compared to those of accounting majors, have been widely discussed and studied in recent years. Historically, both majors and non-majors have taken the same courses for the first one or two introductory-level courses at most schools. Prior to the decade of the 1960s, virtually all of the textbooks used in these courses and most of the courses themselves were oriented toward the procedures involved in analyzing and recording transactions and the preparation of periodic financial statements. Under these conditions, the elementary course content for both majors and non-majors was identical within most institutions and quite similar throughout the country.

More recently, disagreement has arisen as to whether this procedural approach or a more conceptual approach is more appropriate in the courses taken by non-majors. A large number and wide variety of texts has developed and
course orientations have diversified. In addition, the number of institutions offering courses in basic accounting has increased with the growth of numerous community and junior colleges. A result of this diversification in text and course content would seem to be less similarity in the mental filters of students, both majors and non-majors, than might otherwise be the case. While no attempt is made here to prescribe what approach or specific content is best for all concerned, the possibility is pointed out that such diversity might be a hindrance to future communication effectiveness. Some possible methods for dealing with this problem are discussed in the following chapter.

In summary, many individuals who are not accountants need to be able to interpret accounting reports and communicate with accountants. College-level courses provide opportunities for students to gain background knowledge to assist them in "talking the accountant's language" and assigning appropriate meanings to messages received from accountants.

Mental Filters of Accounting Majors

Most accountants need to be able to communicate with individuals in spite of wide variance in backgrounds and experiences. Many reports, both internal and external, are prepared for recipients who are not accountants and who do not have a great deal of accounting
knowledge. Other activities may involve a great deal of interaction among accountants while still others involve communication with individuals who assist in data gathering and report preparation but who are not themselves accountants. Examples of this last group might include computer specialists, systems analysts, attorneys, actuaries, and others who can provide specialized skills and knowledge needed by accountants.

Reporting to Non-Accountants

As mentioned in Chapter III, one method of improving communication is for report preparers to consider the knowledge, experience, and specific needs of intended recipients. In the current context, it is desirable for an accounting major to know what non-majors are taught in various courses in order to obtain a basis for future judgments as to what interpretation a recipient might give to a particular report. This knowledge is available when all students take basically the same courses. Majors may also need to be provided with information as to what non-majors are taught, even when they take significantly different courses.

Accounting majors can also obtain useful knowledge from non-accounting courses. Study of other functional areas of business is generally required of accounting majors and should provide them with insights into some of the uses to which their future reports may be put.
Such study should aid in future attempts to communicate with many individuals who have little or no accounting background.

In brief, the mental filters of accountants and of non-accountants with whom they wish to communicate need to have certain similarities. Educational programs can serve to provide similar inputs to these filters and to help majors be aware of how much non-majors can be expected to know about accounting and a number of other subjects.

Communication with Other Accountants

Accountants may devote a significant portion of their time and effort to communicating with other accountants. This activity may take place within an organization as various individuals combine their efforts to accumulate and present needed data or it may involve external communication with such groups as independent auditors, government agencies, bankers, underwriters, and others employing professional accounting personnel. The education received by these accountants should provide the basis needed for them to communicate but there is little evidence in the literature that significant agreement exists among accounting educators regarding what accounting majors should be taught.

Roy and MacNeill have provided a study of what beginning accountants need in the way of academic preparation. One of their conclusions is: "The beginning
CPA must therefore have a conceptual grasp of accounting, its interdisciplinary aspects, the environment in which it functions, and of those bodies of knowledge which are ancillary to its central purpose. While this study was CPA-oriented, the emphasis is not directed solely toward public accounting practice as seen by the following quotation: "We have postulated that the common body of knowledge set forth herein is for the beginning CPA who is to practice, as a public accountant, as a teacher, or as an employee in government or private enterprise."

Following publication of Roy and MacNeill's report, a Committee on Education and Experience Requirements for CPAs was appointed by the American Institute of CPAs. This committee reviewed Roy and MacNeill's report and gathered reactions in fifty seminars conducted in conjunction with business schools around the United States. Noting a trend toward greater formal education and less on-the-job training as preparation for accounting careers, the committee's report says: "We agree that this development is desirable and believe that the body of knowledge necessary for entrance into the profession will and should be acquired as a part of collegiate education."

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This committee also developed a "Model Program" to describe a possible method for carrying out the "Common Body of Knowledge" recommendations of Roy and MacNeill. After taking note of the various types of educational programs through which accountants might receive their academic backgrounds, the committee recommends: "Regardless of the institutional setting in which a student completes his career preparation, the scope and content should approximate what is described hereinafter."14

The model program itself suggests specific subjects with recommended semester hours for each general subject area and points out that five years would be required to complete such a program.15

These reports, issued in 1967 and 1968, do not seem to have generated the agreement and cooperation needed to move educational programs toward common goals and content. Moonitz wrote favoring the implementation of the model program in 1973. After mentioning the two reports discussed above, Moonitz says: "To date, the academic community as a whole has not matched the energy or the effort of the practicing arm of the profession in reviewing and appraising the education of accountants."16

14 Ibid., pp. 42-43.
15 Ibid., pp. 43-59.
Moonitz makes another interesting point as he observes: "We have been witnessing a drifting apart in recent decades, with the academics moving, in some instances, so far from the practitioners that the two no longer even communicate. They use different vocabularies and have different concepts of what the field is all about."  

Campfield, in a 1971 article, reaches a similar conclusion regarding the situation within the educational sphere: "In the never-never land of professional education, only one thing seems certain--there is no well-articulated consensus as to the objectives, breadth, and content of the minimum preparatory education for entering a profession."  

Whitham's 1974 article questions the wisdom of a five-year, conceptual program and observes that most students do not have sufficient experience to predict what their career orientations will be. He says: "A bachelor's program providing a balance between conceptual understanding and procedural skill can encompass most of the Common Body of Knowledge recommendations. Subsequent

17Ibid., p. 67.

education can prepare the professional accountant for additional responsibilities."^{19}

Whether Roy and MacNeill's recommendations and the subsequent Beamer committee report should be considered as appropriate foundations for curriculum and course development is not evaluated in this work. It does seem appropriate, however, to recommend that some acceptable foundation should be developed and used in planning educational programs for accounting students. In terms of the Combined Model developed in Chapter II, individual accountants need certain knowledge and experience in common to provide the mental filter similarity required to be able to communicate effectively with each other. A first step to acquiring this common knowledge and experience is specification and agreement as to what is needed and what can reasonably be provided through educational programs.

Communication With Non-Accountant Specialists

Accountants may not routinely need to be computer programmers, systems analysts, statisticians, attorneys, or actuaries, but they may often need technical assistance from these or other specialists. The "Common Body of Knowledge" recommended by Roy and MacNeill includes

subjects in areas such as law, mathematics, statistics, probability, computers, finance, production, marketing, and management. The inclusion of these subjects may result as much from communication considerations as technical needs as evidenced by the following.

In Chapter Sixteen, dealing with the need for an accountant to study law, Roy and MacNeill say:

This is not to say that he be an expert in legal affairs or that he be prepared to advise on legal matters or otherwise engage in the practice of law, but rather, his knowledge should be sufficient to enable him to recognize relevant problems when they occur, to work with counsel when necessary and, further, to seek legal counsel, or recommend that it be sought, when it is appropriate to do so.20

Dealing with the functional fields of business, the recommendation in one specific area is "that the beginning CPA possess a good knowledge of the terminology of finance, which is to say that he understand the meaning of the terms."21

Not all of Roy and MacNeill's recommendations are tied so directly to a communication need but each can logically be related to a need to be able to "talk the language" of a specialist in some non-accounting field. Providing accountants with sufficient vocabulary or background to communicate with the various specialists

20Roy and MacNeill, Horizons, p. 237.
21Ibid., p. 261.
with whom they will work might well be the optimal orientation for some sources in the accounting curriculum. Also, as in cases of non-accountant users of accounting reports discussed previously, knowing how much these non-accountants know about accounting might be helpful in many communication situations.

Applications to Accounting Instruction

To this point, this chapter has stressed providing students with knowledge of communication concepts and sufficient similarity in their mental filters to prepare them for careers dealing with accounting activity and reports. The purpose of this section is to point out ways in which some of the communication theory concepts developed in Chapter II might be applicable to accounting educational programs.

The 1972 American Accounting Association Committee on Application of Learning and Communication Theories to Accounting Instruction emphasized the importance of communication theory concepts to accounting instruction. Included in their discussions are problems of message selection, encoding, transmission reception, decoding, interpretation, and feedback.22 The importance of the

"interpretation" stage is emphasized by saying: "Even if the preceding communication steps work perfectly, the entire process breaks down when the student assigns meanings to words, gestures, and other signals which are different from the meanings intended by the instructor."\textsuperscript{23}

The mental filters of students and their professors are likely to be quite different and this lack of similarity may make communication between them difficult and conscious effort may be required on the part of faculty members to alleviate this difficulty. Awareness of the communication environment and the role it might play in instructional communication is also important. Special arrangements or techniques may be needed to compensate for disadvantageous class sizes, classroom conditions, meeting times, and mixtures of student backgrounds. Large classes, poor lighting, hallway or classroom noise, Friday afternoons before football games, and students with widely varied interests are only a few of the infinite number of possible difficulties that may need to be overcome or at least minimized in some way.

All students and teachers have limited abilities to transmit and receive messages and active awareness of such limitations may be of great significance in some

\textsuperscript{23}Ibid., p. 274.
situations. Many professors talk faster than students can listen or comprehend. Some students may not be able to read what is written on a chalkboard or flashed on a screen accurately or rapidly enough to get the intended message. These are only general examples of innumerable problems that might result from individual transmitting and receiving limitations in instructional situations.

Feedback, or two-way communication, is a vital element in the educational process as it allows teachers and students to discover ways in which their efforts to communicate have fallen short. It provides opportunities to clarify points made, to discover and correct mistaken impressions, and to avoid similar difficulties in the future.

Summary

The purpose of this chapter has been to emphasize the importance of the communication theory concepts developed in Chapter II in relation to accounting education. Primary emphasis has been placed upon the importance of providing students with knowledge and skill in communication, developing appropriate inputs to students' mental filters, and applying communication theory concepts to the instructional process. It is acknowledged that each area discussed is incomplete and subject to further evaluation. However, it does seem appropriate to conclude that communication is an integral
part of accounting and education and that elements of communication theory can be applied to these activities separately and collectively. More specific discussion of many of the general points covered here can be found in Chapter V along with suggestions of possible means of implementing the selected communication theory concepts in accounting educational programs.
CHAPTER V

STRATEGIES FOR IMPLEMENTATION

Introduction

Chapters I through IV emphasize the importance of communication to accounting in general and relate selected communication theory concepts to specific activities within accounting and the education of accounting students.

The purpose of this chapter is to suggest and discuss some possible strategies for employing selected communication theory concepts in accounting education. After defining a few terms and describing a series of interviews conducted at educational institutions to obtain first-hand data, the same three broad areas discussed in Chapter IV will be used to organize the present discussion. First, possible means for teaching students to be better communicators are discussed, followed by suggested methods for developing similarity in mental filters for future communication improvement. Third, possible ways of employing communication theory concepts in the actual teaching process will be suggested.
All of these suggestions are based upon such considerations as the model and concepts developed in the earlier chapters, information available in accounting literature, and information obtained in the interviews.

**Definitions**

In the discussions which follow, the terms "community college" or "junior college" refer to two-year institutions which do not award bachelor's degrees while "degree-granting institution" refers to those that do offer at least a bachelor's degree. Among the degree-granting institutions, the terms "four-year institution" and "upper-division university" are used, with the latter referring to institutions that enroll students only at the junior level or above. "Instructor" and "teacher" are used to refer to all individuals who teach accounting classes, regardless of their academic rank or title.

**The Interviews**

Interviews were conducted at a selected group of institutions to obtain information on accounting educational programs from faculty members and/or administrators. The primary objective of each interview session was to determine what things are being done that might be considered to be practical applications of communication theory concepts to accounting education.
Persons interviewed were asked to respond to specific questions and then to discuss their responses and any related ideas which might have arisen from the discussion. Each person was told that the questions were intentionally broad, and that their purpose was to guide the interview and suggest areas of discussion to provide the interviewer with insights into how things are done at the school being interviewed. The general content of the introduction given at each interview and a copy of the form used to record responses are presented in Appendices A and B.

All of the institutions selected for interviews are located in the southern portion of the state of Florida, bounded on the north by two schools in the Orlando area. Those interviewed include eleven community colleges and eight degree-granting institutions.

Of the latter eight, four are privately owned and four are state universities. Two of the state universities are upper-division universities. Based on U.S. government reports, seven of these degree-granting institutions accounted for 405, or 53%, of the accounting majors receiving bachelor's degrees in Florida in 1970-71. The eighth is a new upper-division university.

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Florida International, which was included because it is also located within the geographical area defined above and currently offers accounting courses and degrees. FIU held its first classes in the Fall of 1972 with an undergraduate enrollment of 4,282 students. Appendix C shows the names of the degree-granting institutions interviewed and the number of bachelor's degrees in accounting awarded by each in 1970-71.

All of the community colleges in the specified area with enrollments in excess of 1,000 students in the Fall of 1972 were interviewed. These colleges enrolled 51,016, or 62%, of Florida's total community college enrollment at that time.\(^2\) Included in this group is Miami-Dade Community College, the state's largest, with a 1972 enrollment of 18,046 students.\(^3\) The names and Fall, 1972, enrollments of all of the community colleges interviewed are presented in Appendix D.

The relatively close physical proximity of these nineteen institutions made it feasible to conduct personal interviews at each. At the same time, the variety of types of schools in the group provided information from a number of different viewpoints.


\(^3\)Ibid.
While a much wider geographical distribution of schools might have been desirable in obtaining some of the data collected, this particular collection of eleven community colleges, two upper-division universities, and six four-year institutions provides certain advantages when attempting to study communication activities among accounting educators and among their respective institutions. The movement of students among such institutions serves to emphasize communication needs which might not be so readily recognized in other geographical and institutional settings.

**Teaching Communication Knowledge and Skills**

As established earlier, communication is a significant part of accounting activity and those who work with accounting reports, either as preparers or recipients, need knowledge and skill in communication as well as in accounting. In Campfield's words: "Until a person can move an idea from his own mind to that of another the knowledge the former has is virtually useless."\(^4\)

This section is devoted to suggesting possible ways students' abilities might be improved through

college-level accounting courses and programs. Each suggestion is based upon concepts developed in the preceding chapters, information obtained from published literature, and the personal interviews. It is recognized that many other techniques could be added to those mentioned, including limitless variations and adaptations to meet the many unique educational situations encountered. The objective, however, is limited to suggesting and discussing possible strategies and no attempt is made to include all possible suggestions. Discussion of possible ways of preparing accounting faculty members for the types of educational activity suggested is deferred until later in this chapter.

First, it is suggested that each accounting faculty member should be aware of the elements involved in the communication process and should stress the importance of communication in each course, regardless of the subject matter involved. Whenever practical, communication concepts should be presented to students early in their educational programs, in much the same way that elementary accounting principles are introduced early, as a foundation for additional learning experiences. This would provide background upon which to base reviews, re-emphasis, and applications to specific situations throughout the remainder of the student's educational program.
Each of the institutions interviewed offers basic English courses and requires credit in such courses of all business administration students working toward bachelor's or associate's (two-year) degrees. Each also offers at least one course in technical writing, report writing, business English, or business communication with four of the degree-granting institutions requiring such a course of all accounting majors.

Time and resource limitations precluded gathering information on the specific orientation and content of all of these courses. However, it seems reasonable to suggest that such courses might appropriately include instruction in communication theory concepts, regardless of whether this is presently the case. Of course, in order to reinforce or supplement student knowledge of communication theory, subsequent instructors need to know what students have been taught previously.

Research conducted by a 1972 American Accounting Association committee found that the media most frequently reported as used by seventy colleges and universities to develop communication skills in accounting classes were term papers, oral examinations, written examinations,
question and answer periods, seminars, written quizzes, and case studies. The current interviews generated discussion of many of these same points and also brought out additional ideas which are included in the following discussions.

Written reports or term papers were reported in a number of accounting courses above the elementary level. One department interviewed requires term papers in intermediate accounting while another has them only in the most advanced courses. Others indicated that such requirements varied with individual instructors and that there is no departmental policy or requirement in this area. One mentioned the use of English graduate students to assist in grading accounting papers. Oral reports are also used in at least one accounting course at five of the nineteen schools interviewed.

Each of the persons interviewed indicated that written examinations are used but with varying degrees of emphasis placed upon ability to communicate. One individual related favorable experience with the use of "grammar points" on written examinations. Under this system, grammatical errors are marked and assigned a point value, which may or may not be included in the

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exam grade, to call attention to such errors in the hope of improving future results.

Other methods reported as used in connection with accounting classes include:

1. Grading of homework for appearance and completeness to increase student awareness of the importance of presentation and readability in the communication process,

2. Requiring students to show and label all steps in problem solutions,

3. Use of seminars, case studies and practice sets to provide students with practical experience in report preparation and presentation,

4. Use of an accounting laboratory in which students can discuss individual problems with a lab assistant, or

5. Asking questions and requiring oral responses or explanations by individual students during class time. Interviewees at two schools reported attempts to involve every student every day whenever possible.

Each of the techniques mentioned above seems useful in providing opportunities for students to improve their communication knowledge and skills, especially when emphasis is placed in this area. In
many cases, however, conscious efforts on the part of faculty members may be needed to point out the importance of such considerations as the needs of report users, the meanings which might be assigned to messages by various recipients, limitations on how much can be transmitted and/or received in a given communication situation, environmental factors which might interfere with communication attempts, and the availability of feedback to permit evaluation of communication success. One interviewee alluded to this sort of effort as he described the practice of pointing out potential communication problems to students as various accounting reports and activities are discussed in class. Specifically mentioned were problems arising from the use of several different terms to describe the same basic concept and the assignment of technical meanings to words with different common usages.

In addition to activities within accounting classrooms, one individual interviewed reported recommending a course in logic to aid students in solving accounting problems and in explaining solutions to others. Another reported that placement tests, remedial courses, and reading labs are used to help students improve their communication skills.

Because of the need to consider each situation individually, no specific techniques can be recommended
as best or even appropriate for use in all programs to prepare accounting students for careers as either preparers or recipients of accounting reports. It is suggested, however, that the communication theory concepts discussed here can provide direction and guidance while using whatever techniques are selected. Faculty and student awareness of the importance of various communication elements should assist in providing accounting programs that adequately prepare students for careers which require them to be communicators.

**Developing Mental Filter Similarities**

The importance of mental filter similarities among accountants and those with whom they must communicate is pointed out in Chapters III and IV. Since the make-up of each mental filter results from an individual's personal experiences, it is assumed that the orientation and content of accounting courses can influence future communication ability through the experiences provided therein. The preceding section deals with helping students develop knowledge of the elements of communication. The purpose of this section is to suggest and discuss possible methods of providing sufficient mental filter similarity to facilitate future communication activities.

As suggested in Chapter IV, wide diversity in the orientation and content of accounting courses and
programs might cause them to be less effective in preparing students for future communication activities than would otherwise be the case. Similarity in the content of courses taken by both accounting majors and other students at various educational institutions is suggested as a means of increasing mental filter similarities and thereby improving future communication effectiveness.

At this point, more specific strategies are suggested and discussed in relation to various aspects of accounting program similarity.

One obvious means for providing similarity in the experiences of accounting majors and non-majors at any given institution is to require them to complete courses together. As long as various sections of such courses are similar in orientation and content, common experiences will be provided for students to use in future communication encounters with each other. Little difficulty should be encountered in providing similar experiences for accounting majors at any given school at the same time. However, when both majors and non-majors are considered, additional problems arise.

Among those students who will need to be able to communicate on accounting topics, there is likely to be wide variety in majors and educational programs. Such variety reduces the number of courses taken together
and thereby reduces the number of opportunities available for building mental filter similarity. This necessitates making the most of those opportunities which are available.

Introductory accounting courses provide one such opportunity. Once it has been determined which students need knowledge of accounting, such courses can provide similar foundations upon which they can build future attempts to communicate with each other. Even when it is deemed desirable to separate accounting majors from the others because of differences in technical needs, as is sometimes done in managerial and cost accounting courses, it is still possible to cover many common terms and concepts and to keep each group informed as to what the other is learning.

The preceding paragraphs describe an uncomplicated and oversimplified means for providing mental filter similarity through accounting courses offered to students at one school at the same time. Serious complications may arise, however, when communication with individuals from other backgrounds is considered. Difficulties may result from such factors as participation in educational programs at different schools or in different time periods with resulting differences in the mental filters of parties to a communication attempt.

As mentioned in Chapter IV, there is lack of agreement among educators as to what the appropriate
orientation and content of accounting courses and programs should be. While relative advantages and disadvantages of both diversity and uniformity might be argued indefinitely, a communication theory point of view seems to call for at least a minimal amount of similarity in what is taught to accounting students at various institutions. The following discussion deals with selected aspects of similarity in elementary and in upper-level accounting courses of various institutions and how standards might be developed and implemented to promote such similarity.

**Introductory Accounting**

The most complete study to date dealing with what the orientation and content of elementary accounting courses should be was sponsored by the Price Waterhouse Foundation and published in a report in 1971. A Study Group, composed of a group of educators from about fifteen different institutions, worked with the following as one of their basic assumptions:

The importance of accounting as a whole to a private enterprise society suggests that the first course in accounting should not be influenced by the educational needs of prospective accounting majors. Instead it should seek to convey to a general audience of college students the conceptual content of accounting, the overall scope of the accounting function, and the interpretation of accounting reports.

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Furthermore it should, in analytical terms, have a primary educational objective of informed citizenship. As such, the course should be important for all college students without regard to major area.⁷

The Group concluded, "... the first year of accounting instruction in institutions of higher learning can be geared to the needs of university students in general rather than to prospective accounting majors alone," and observed that their approach "contemplates a user orientation for the entire first year of accounting instruction."⁸

Their report also includes an inventory of subjects which the Study Group deemed appropriate for first-year accounting courses and some detailed discussion of what might be included within each of these subjects.⁹ There is, however, no consensus to be found in accounting literature as to whether this recommended content and orientation is indeed an optimal, or even acceptable, guideline for course and curriculum planning.

The present purpose is not to provide an evaluation of any proposed course content or orientation but simply to suggest that there should be at least minimal standards of content and quality for basic accounting courses

⁷Ibid., p. 3.

⁸Ibid., p. 138 (emphasis added).

⁹Ibid., pp. 9-59.
offered throughout the country. If it is important for students who are not accounting majors to take accounting courses, they must surely have needs which can be specified to at least a limited extent.

Setting minimal standards and providing a vehicle for evaluation or accreditation of courses should provide greater consistency in what students learn in basic accounting courses at various institutions. This point is discussed in greater detail later in this chapter.

Requiring both accounting majors and non-majors to take courses together can be expected to increase the similarity in their mental filters. By the same token, consistency in course content at various institutions throughout the country should provide similar benefits on a larger scale. While consistency in course content and orientation is certainly not the only appropriate objective for consideration, at least minimal consistency standards do seem justifiable in light of their potential importance to future communication effectiveness.

Diversity also presents potential problems within the educational process itself as students complete courses at one institution and subsequently transfer to another. Students with widely varying accounting backgrounds may find themselves together in upper-level accounting courses with resulting problems for both the students and their instructors. Students who receive
transfer credit for all of the accounting courses required for their majors might graduate from a degree-granting institution without receiving substantial portions of the accounting background intended when curriculum requirements were developed.

Each of the degree-granting institutions interviewed for this study accepts transfer credit for first and second year courses, including elementary accounting, from accredited institutions. The four state universities interviewed reported being required by a state-wide articulation agreement to transfer community college credit earned by students completing Associate in Arts degree programs designed for this purpose. Included among these state universities are the two upper-level universities whose undergraduate enrollments are made up entirely of transfer students.

**Upper-Level Accounting Courses**

Accounting courses above the introductory level are generally intended for accounting majors and for certain other students who need additional knowledge of accounting subjects. Similarity in these courses and in curriculum requirements at various institutions serves as a potential source of mental filter similarity needed by accountants to communicate with each other and with others who acquire accounting knowledge from college programs. However, as discussed in Chapter IV, efforts
to specify what the orientation and content of accounting courses and curricula should be have not found general acceptance around the country. More specifically, only two of the degree-granting institutions interviewed as part of this study indicated that *Horizons for a Profession* and the report of the Committee on Education and Experience Requirements for CPAs (Beamer report) had a significant influence upon their total accounting programs. Discussion with these two revealed that no conscious effort is made to base programs upon recommendations found in these sources but that they are among the factors considered in program development or revision. Other factors reported as significant are discussed later in this chapter.

Again, no attempt is made in this work to evaluate the merits of *Horizons*, the Beamer report, *A New Introduction to Accounting*, or any other source of guidance for accounting education. It is suggested, however, that some widely accepted source is needed to guide those who attempt to develop and evaluate educational programs in accounting.

This is not intended to imply that diversity and academic freedom are not both necessary and desirable. It is suggested that establishing minimum standards for undergraduate accounting education should benefit students
and the accounting profession in the long run through improved communication capabilities.

Standards and Accreditation

Several suggestions have been made in accounting literature in recent years relative to the establishment of standards and accreditation methods for accounting programs. In a 1969 article, Summers and Hermance suggest a "Uniform CPA Examination based entirely on the best contemporary college accounting programs." They say: "This examination would encourage national uniform standards for core subjects in the accounting curriculum."

Mason presents the following recommendation in a 1971 article entitled "Obstacles to Progress in Accounting Education": "In order to coordinate efforts in overcoming the enumerated obstacles, an authoritative body or committee should be formed, including representatives of the American Accounting Association, the American Institute of CPAs, and the American Association of Collegiate Schools of Business." He also suggests


11Ibid.

uniform CPA education requirements for all states to specify what constitutes a major in accounting or its equivalent.\textsuperscript{13}

Another group with an interest in the subject under discussion is the National Association of State Boards of Accountancy (NASBA). Recommendations of a joint AICPA-NASBA Committee on Professional Recognition and Regulation included the following: "Our recommendation is that the Institute, NASBA, and other professional accounting associations join with the AACSB and AAA to establish standards for accreditation and then participate in accreditation of accounting curricula and of professional schools."\textsuperscript{14} They cite the large numbers of CPA candidates for whom educational backgrounds must be evaluated and the large number of schools from which they graduate as presenting problems and observe "... the profession has set no standards for academic preparation, ..."\textsuperscript{15}

\textsuperscript{13}Ibid.


\textsuperscript{15}Ibid., p. 20.
In a 1974 article, Pattillo observes that publication of Horizons and the subsequent Beamer report "... has spurred greater co-operation among practitioners and academicians toward the objective of improving the accounting curriculum." After discussion of the AICPA-NASBA recommendation mentioned in the preceding paragraph and possible needs arising with the development of professional schools of accountancy, the following observation is made: "One of the American Accounting Association's most significant acts to promote professional education could be that of leading a movement toward forming an FASB-like organization--call it (say) the Accounting Education Standards Board." This board would be composed of representatives of various accounting groups and interests and would be involved in developing standards and accreditation methods for accounting education programs.

The above suggestions on testing programs, standards, and accreditation do not specify mental filter similarity or communication ability as objectives. Such benefits should follow, however, with the implementation of any plan which narrows areas of difference in the orientation


17 Ibid. (parentheses in original).

18 Ibid., p. 55.
and content of accounting courses and programs. It can also be observed that none of the suggestions explicitly includes community college programs, but consideration of communication theory concepts reveals benefits to be found in course and program similarity, regardless of what type of institution is involved.

Summary

Mental filter similarity provides a foundation upon which communication efforts can be built, and courses at educational institutions are a potential source of influence on the make-up of the filters of future providers and users of accounting reports. Elementary accounting courses provide input to some students who will go on to additional study in accounting and to others who may not receive further education in accounting but may need to communicate in accounting terms throughout their careers. Upper-level courses should provide accounting majors with knowledge of the uses and users of accounting output as well as sufficient technical accounting knowledge to prepare students for careers in which communication with both accountants and non-accountants will likely be prevalent. These factors indicate an apparent need to specify the educational needs of students and develop standards for planning and evaluating collegiate education in accounting at all levels.
Development of standards and machinery for their implementation and updating might be supplemented with widespread publicity and continuing education programs to provide accountants and other interested parties with information on what college students are currently being taught. This type of activity should result in a narrowing of mental filter differences created by changes in educational programs over time. Mental filter similarity over time would also be improved by many of the strategies discussed in the following section and suggested for use by individual instructors and educational institutions.

**Applications to Accounting Instruction**

The following quotation appears in the report of the American Accounting Association's Committee on Application of Learning and Communication Theories to Accounting Instruction:

> Upon the basis of its study, the Committee strongly urges that every instructor in accounting should become aware of these concepts and how such might be relevant in their teaching.\(^{19}\)

Earlier sections of this chapter dealt with possible methods of providing accounting students with mental filter similarity and knowledge of communication

concepts on which to base future communication attempts. The purpose of this section is to suggest and discuss a number of ways in which the communication theory concepts discussed previously might be employed in the educational process itself. This discussion is divided into two parts, dealing first with classroom applications and then with various other applications to the educational process.

**Classroom Applications**

Instructor awareness of communication concepts and their instructional implications is an important first step in applying such concepts in accounting classes. As the AAA committee referred to above concluded: "... perhaps the instructor's biggest challenge will be to avoid the complacent attitude that he is a master of the communication process."\(^{20}\)

The following discussions are intended to provide additional insights into how knowledge of students' backgrounds, awareness of limitations on communication, and feedback might be applied in accounting courses. Only a few of the innumerable possible applications of these concepts are discussed here. It is hoped, however, that these represent most of the types of applications which might be made.

\(^{20}\textit{Ibid.}, p. 275.\)
Knowledge of Students' Backgrounds

Mental filter similarity is essential if a student (destination) is to assign the meanings intended by an instructor (source) to messages received. The AAA committee's observation is that problems of assignment of different meanings by instructors and students are particularly important in accounting instruction because of specialized meanings intended by accountants for words which may have quite different meanings in ordinary conversation.21

If it is assumed that the objective of accounting instruction is to add to the content of students' mental filters, it seems appropriate to suggest that instructors should know as much as possible about the prior knowledge and experience of each student. However, it should also be recognized that practical considerations may limit the amount of individualized information obtainable and make it necessary to settle for general information about students by course, section, instructor, or other grouping.

Background information might be obtained from such sources as test results, transcripts, former teachers and other acquaintances, advisement or counseling files and reports, the students themselves, and knowledge of the content of other courses completed. The following

21 Ibid., p. 274.
is a compilation of specific methods or procedures reported by at least one of the institutions inter-viewed in south Florida. Each method described is a report of how information has been obtained in a specific case and should not be considered as representative of any other school unless so specified in accompanying discussions.

1. Index cards are used by instructors in the classroom to obtain data on previous courses completed and work experiences from individual students. --In all, twelve of the institutions interviewed indicated at least some use of surveys by faculty members to obtain back-ground data on students in their classes.

2. Counseling office files, including placement test scores and updated grade reports, are available to instructors upon request. --While seven institutions indicated availability of files of this general nature, none reported consistent use by individual faculty members. Others interviewed said files existed but expressed doubt as to whether individual instructors still have the legal right to enter such files even if they so desire.
3. Verification that all students have completed the prerequisites for accounting courses in which they are enrolled provides instructors with general data on students in such courses.

4. Evaluation of transcripts and interviews with transfer students provide knowledge of their background experiences at previous institutions.

5. AICPA Level I tests are given early in the first intermediate accounting course at one of the upper division universities to obtain general information about the students enrolled. The results are used for general information only and instructors are not given access to individual students' scores. Additional information on this testing program is available in a 1974 *Journal of Accountancy* article.22

Each of the above methods implies some consideration and evaluation of prior academic experience. Those interviewed were asked what methods are used to provide instructors with information on the content of courses, particularly accounting courses, previously completed.

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by their students. Again specific cases are presented with discussion as needed for clarification or additional information.

Each of the community colleges interviewed reported holding faculty meetings at which courses are discussed. Some reported formal meetings of accounting or business faculty with meeting frequency ranging from once each quarter to once each year. All reported the use of informal meetings as needed for various purposes throughout the year.

Other methods mentioned at community colleges include instructor knowledge of the texts used in each course and rotation of teaching assignments, with most instructors teaching elementary courses regularly. (Note: Five of these community colleges offer accounting courses at the intermediate level or above)

Each degree-granting institution also reported using formal and/or informal faculty meetings, one as frequently as every two weeks. Rotation of teaching assignments was reported at two schools and another reported attempting to have all faculty members teach intermediate accounting as regularly as it is practical to do so.

Among reported methods of obtaining information on the content of courses taken at other colleges were: meetings with faculty of other colleges, knowledge
of texts used, catalog descriptions of courses, and interviews with the students. One individual also observed that the first examination in intermediate accounting provides information on students' elementary accounting knowledge, regardless of where such knowledge was obtained.

One person interviewed commented that, in general, instructors know too little about student backgrounds but that time and legal limitations make it impractical to correct the situation. However, with student cooperation and use of methods like those mentioned above, it does seem practical to obtain information about student mental filters to facilitate communication in the classroom. Developing standards and evaluation methods for all levels of accounting education, as discussed earlier, should provide at least minimal similarities in what students are taught at various institutions, thus making background evaluation by subsequent instructors easier.

Another possible method of providing instructors with assistance in considering student backgrounds would be to group students in sections according to their academic records, work experiences, or other common factors. The only use of this procedure reported in the interviews was a professional development course designed specifically for a group of Spanish-speaking
CPAs. Among the reasons given for not attempting to group students were concern over charges of discrimination, scheduling problems, and unavailability of reliable criteria for grouping.

Awareness of Limitations

Even if faculty members were able to have extensive knowledge of each student's mental filter make-up, several other factors would need to be considered to facilitate communication in classroom situations. Among these factors are: limitations caused by mental filter dissimilarity, limited transmission and receiving capabilities, and environmental factors which hinder communication efforts. The Combined Model presented in Chapter II and the accompanying discussions indicate that each of these factors is a continuous part of the communication process, with all occurring simultaneously.

Since no two mental filters are exactly alike, instructors need to be aware of problems that dissimilarity might cause. While some students in a given class might correctly interpret the intended meanings from text assignments, classroom presentations, and other associated activities, others may assign quite different meanings to the same messages (stimuli).

Additional problems occur because instructors cannot transmit everything that might be relevant about any subject and students' receiving devices cannot pick
up all of the stimuli present in the communication environment. As an instructor selects methods of transmission and prepares messages a great deal is left out and everything that is transmitted will not be received by the students. Not only are many stimuli missed, but many competing stimuli are present in the environment. Such distractions (noise) will tend to further reduce the number of stimuli received by the mental filter of any given student with the result that many different messages may be received by members of a given class.

Once an instructor is aware of the potential problem areas mentioned above, there are numerous techniques which might be employed in attempting to minimize their impact. Careful consideration can be given to whatever is known about student mental filters as messages are prepared, and feedback can be obtained on how well intended meanings are being received and interpreted. Methods of obtaining feedback from students and providing feedback to students are discussed in greater detail in the following pages.

Involvement of more than one receiving device in attempts to communicate and repetition of important points are additional strategies available for use in overcoming the various types of limitations presently under consideration. Examples might include such methods as: 1) use of visual aids in conjunction with vocal
presentations;
2) coordinated use of textbooks, study guides, practice sets, problem assignments, and testing;
3) use of accounting laboratories, review sessions, and individual instruction when needed; and
4) use of computers, tape recorders, and other mechanical devices to supplement and reinforce other instruction.

Of those persons interviewed, seven reported that their schools are using ALEX\textsuperscript{23} modules, made up of filmstrips and cassette tapes, to provide individual and/or group instruction in introductory accounting topics. Two reported limited classroom use while all seven reported laboratory or library use by individual students as supplemental or remedial instruction.

Feedback

As mentioned previously, feedback provides data for use in evaluating how well messages have been received and how closely the meanings assigned to them by recipients correspond to those intended by the source. Feedback in the instructional process can assist an instructor in evaluating how well students have understood and retained material presented or assigned in

class. Such evaluations might then become the basis for actions to re-emphasize or supplement certain points, to correct mistaken impressions, and to avoid problems in future situations. At the same time, feedback received by students can provide them with information on how well they are interpreting what the instructor is trying to communicate, thus enabling them to seek clarification and to correct misunderstandings.

The interviews revealed a number of methods used to obtain information on how well students have understood and retained material presented or assigned in individual accounting classes. Of course, all faculty members and all schools interviewed do not use all of the methods discussed below. Some techniques were mentioned by only one interviewee and perhaps related to only one course or instructor. Others, such as quizzes or examinations, are reportedly used by every accounting teacher at each of the institutions interviewed.

Reported types of quizzes and examinations ranged from all objective questions for machine grading to all problem and essay type questions. A variety of combinations of problems, and essay and objective questions was also reported. One interviewee reported the use of short (ten minute) daily quizzes, hour examinations, and final examinations by faculty members in some courses.
One individual reported a conscious departmental effort to provide feedback to both instructors and students through examinations. This effort includes extensive critiques of exams to reinforce important points, clear up misunderstandings and provide insights into why students may have misunderstood or not recalled specific points.

Reported uses of homework for feedback ranged from formal collection, grading, correction, and return, to informal observation of students as assigned problems are worked and discussed in class. Practice sets were also mentioned as a means used in determining how well students understand various concepts. The oral reports and term papers mentioned earlier in this chapter were also listed among methods for determining how well students are grasping and retaining the subjects under study.

Each interviewee indicated widespread use of informal questions by instructors and students in class and student visits to the instructor's office as sources of feedback. Two also mentioned the use of graduate or other student assistants to conduct labs or "help" sessions, with the instructor receiving feedback as to what concepts are causing the greatest difficulties.

One instructor has ordered, but not yet received, an electronic response system which will be used in the
accounting classroom to allow students to select a multiple choice answer in class with an immediate display of the total number choosing each answer available to the instructor. An interviewee at another school mentioned the presence of classrooms with similar equipment on campus but said that no accounting or other business administration classes had made use of these.

No matter what methods are used to provide feedback to instructors and students, timing appears to be an important element in determining how such feedback can be used to greatest advantage. For instance, interaction within the classroom provides opportunities for immediate feedback to the instructor and students alike. The instructor may repeat or elaborate on certain points which appear to be causing difficulty and students may feel the need to ask questions or obtain help in other ways. On the other hand, feedback sources such as examinations and practice sets may often be too slow to provide maximum assistance in current communication efforts. However, these may serve many useful purposes, such as reinforcing important points and providing information for evaluating past communication success, and for planning future efforts.

In addition to feedback on what students have learned in courses, it may be desirable to obtain students' opinions regarding such things as instructional methods
used, the amount of work required, and communication problems in the classroom. Feedback of this type might provide insights into aspects of the instructional process which might not be brought to light by other methods.

In answer to an interview question in this area, the only consistent response was in the area of course evaluations. All respondents indicated that course evaluations are used in accounting classes at their schools. However, the nature of such evaluations is quite varied, ranging from required each term in each section to not required at all, and from an institution-wide standardized format to the discretion of the individual instructor. One school reported using an institution-wide evaluation form in each accounting section, supplemented with an additional form prepared by the individual instructor.

Student visits with the department head or dean were also mentioned as a source of feedback to individual instructors but no formal plans or programs intended to elicit this type of feedback were reported. One individual reported that "rap" sessions are scheduled with instructors or student assistants in which students are encouraged to express their opinions and complaints. Another mentioned suggestion boxes placed at various locations around campus through which comments and criticisms are occasionally obtained.
One degree-granting institution has a student advisory council for each college which meets with the dean periodically to discuss matters of concern to students. Another has a student accounting association which occasionally brings matters of concern to the department head, and has a requirement that there be a student representative on all departmental, college, and university committees.

To summarize, feedback may be used by both faculty and students to determine how well educational objectives are being met and to call attention to various types of problems in the educational process. While feedback may take many forms, its value in improving instruction will depend upon awareness of its usefulness in relation to various other communication elements, as discussed throughout this chapter.

Other Applications

The following is a discussion of some applications of communication theory concepts to aspects of accounting education other than classroom instruction. The main topics included are planning and evaluation of accounting educational programs and communication of accounting educators with former students, other educators, practicing accountants, and others who might have an interest in accounting education.
The absence of generally accepted educational standards and methods of program evaluation, such as those discussed earlier in this chapter, makes it necessary for each institution which offers accounting courses to set its own objectives and decide what will be included in various courses and programs. This situation suggests a need to maintain communication with each of the groups mentioned above to obtain information on what students should be taught.

Former students might provide information on how well their educational programs have met their needs and what additions or deletions should be considered. Employers of former students are also potential sources of feedback on existing programs and suggestions for improvement. Practicing accountants, their professional organizations and literature, and other interested parties are also possible sources of information for planning courses and curricula.

In addition, community colleges can obtain feedback from degree-granting institutions attended by their former students and all educational institutions can seek guidance from educators, their schools and professional organizations, and accounting education literature.

Data for planning and evaluating course and curriculum content represents only a portion of the information which might be obtained from the above
sources. Feedback on the effectiveness of teaching methods employed, information on methods in use at other institutions, and results of educational research projects are among the other potential benefits to be derived from communication activities.

The remainder of this section is devoted to reporting interview responses to questions relating to two general areas. The first deals with determining the needs of present students in accounting programs and the other with obtaining feedback on the effectiveness of accounting courses and curricula.

Determining Present Needs

One interview question asked what methods are used to determine the needs of present students in accounting courses who will later attend another college or a graduate school. The only responses received from degree-granting institutions referred to published materials from graduate schools and general knowledge by the faculty of the background needed by students who attempt graduate work. Selected responses received from community colleges are reported below. Other responses which were basically similar to those presented have been deleted to avoid repetition.

Information received from other institutions was mentioned in several interviews. This included such written documents as counseling manuals provided by
degree-granting institutions to community colleges for use with potential transfer students, published bulletins and catalogs, and a newsletter published by one state university. Campus visits by representatives of degree-granting institutions, joint accounting faculty meetings, informal faculty interaction, and knowledge of elementary and intermediate texts used at the nearest degree-granting institution were also mentioned. Past experiences of faculty members and feedback from former students were among the sources other than degree-granting institutions.

Other questions sought information on what sources have had a significant influence on the orientation and content of elementary accounting courses and of the total accounting program at each institution interviewed. Among the influences on elementary accounting reported were: other colleges and universities, textbook content, articles or "Academic Notes" in The Accounting Review, faculty experience, and interactions with practitioners and educators at professional meetings. Each of the above sources was also reported in relation to accounting programs as a whole. Additional sources of influence reported on total programs were: past CPA examinations, past CMA examinations, Horizons for a Profession, Accounting Principles Board and Financial Accounting Standards Board pronouncements, and feedback from graduates.
Feedback on Program Effectiveness

Each person interviewed was asked to discuss methods used at his school to obtain feedback on accounting program effectiveness from former students, employers of former students, and educational institutions attended by such students. The use of surveys was among the methods reported. Specific responses in this area included surveys of accounting majors immediately following graduation and periodic surveys of all business graduates, and community college follow-up surveys.

A similar type of feedback cited was the provision of reports to community colleges by degree-granting institutions attended by their students, indicating how these students compared with other students in similar programs.

Recruiting activities were also reported as a source of feedback through faculty interaction with recruiters who represent employers of former students. One person interviewed said that recruiting teams often include former students, providing an opportunity for obtaining first-hand information on program weaknesses and strengths. Another observed that the fact that recruiters return after employing his school's graduates provides feedback in itself.

Interaction at meetings of professional organizations and continuing education courses were reported as sources of feedback from former students, employers and other
educators. The joint faculty meetings of community college and upper-level institutions mentioned earlier were also listed as sources of feedback. Specific examples included some meetings held at community colleges and others held at degree-granting institutions. Other types of meetings mentioned were Beta Alpha Psi alumni meetings and an annual alumni day which includes seminars on various educational topics.

One person described an accounting advisory committee, made up of practicing accountants from the local area, which provides feedback on program effectiveness and current needs of the local business community. Another mentioned interaction with the employers of co-op students as a source of continuous evaluation and feedback.

**Summary**

In this chapter, specific activities reported among nineteen colleges and universities are combined with general recommendations to suggest ways in which the communication theory concepts discussed in the earlier chapters might be applied to accounting instruction. This includes discussion of possible ways of including communication concepts among the subjects covered in accounting programs and providing students with opportunities to develop their abilities in
accounting courses. Instructor awareness of the importance of communication is mentioned as an essential factor in any recommendation.

In addition to communication knowledge and skill, student needs for mental filter similarity are discussed. Suggested methods for providing such similarity include requiring accounting and non-accounting majors to take certain courses together, specifying student needs at various levels, and providing at least a minimal amount of similarity in the content of accounting educational programs, regardless of where such programs are offered. In view of a lack of general agreement as to what the orientation and content of accounting courses and programs should be, development of standards and methods of program evaluation are suggested as means for encouraging mental filter similarity in students throughout the country.

Suggested applications to the instructional process include instructor awareness of communication theory concepts and their instructional implications, knowledge of students' backgrounds, awareness of those factors which might limit communication effectiveness, and the use of feedback in student and program evaluation.
CHAPTER VI

SUMMARY AND CONCLUSIONS

The importance of communication in the accounting process has been emphasized by many writers of accounting literature in recent years. In addition, research has been conducted which points out various relationships between accounting theory and communication theory.

The purpose of this work has been to explore ways in which selected communication theory concepts might be applied to the educational processes designed to prepare accountants and other users of accounting data at the college or university level. This purpose is carried out by review of existing literature, theoretical application of concepts found in the literature to various aspects of accounting education, and personal interviews conducted at educational institutions to determine what activities are in use which might be considered to be applications of the theoretical concepts developed.

Communication theory literature provides definitions for selected terms and introduces various concepts for use in discussions throughout the remainder of the
work. It is pointed out that communication is not a matter of transferring meanings from one person to another but of generating messages (sets of stimuli) which cause a recipient to assign meanings which are similar to those intended by a sender.

The mental filter is described as the accumulated experience of an individual and the means by which meaning is assigned to stimuli received from the environment. The degree of similarity in the filters of the various participants in a communication attempt determines the ease and accuracy with which each individual can interpret the meanings intended in messages received from others. Limited similarity in background experiences results in a limited foundation for communication success.

Other factors affecting communication activity include limitations on individual abilities to transmit and receive stimuli and distractions or obstacles within the environment itself. It is not possible to transmit all that is relevant about any subject or to sense (receive) all that is available in the communication environment at any given time. The presence of extraneous stimuli (noise) in the environment tends to add to the difficulty by competing with the message for the attention of the intended recipients.

Feedback, or two-way communication, provides information for use in evaluating the success of
communication attempts and in determining how intended meanings might be clarified when misunderstandings are discovered. The availability of feedback varies greatly. It may develop naturally in some communication situations while effort may be required to obtain it in others.

Figure 6 depicts a "Combined Model" of the communication process, emphasizing the elements discussed above. Two circles represent individuals in a communication environment, surrounded by stimuli from numerous sources. Each individual has transmitting and receiving capabilities and a mental filter which depends upon the sensory perceptors (receivers) to pick up stimuli from the environment. Individuals may be able to communicate with each other but the process is influenced by limited transmission and receiving abilities, other elements present in the environment, and the ability of each mental filter to assign meanings similar to those intended by the other. Feedback can occur when one individual has opportunity to obtain stimuli from the other in response to messages previously transmitted. This model and these concepts form the basis for development of the remainder of the work, including applications to accounting activity in general and, more specifically, to accounting education.
In relation to accounting in general, each of the elements included in the Combined Model is important in communicating the results of accounting activity to those who need them. Mental filter similarities are needed for accountants to be able to prepare messages which will enable recipients to interpret the intended meanings. Conscious efforts by both preparers and users of reports may be required to provide sufficient mental filter similarity. Preparers might need to become aware of the needs and backgrounds of recipients while users may need to learn about the procedures and terms used in report preparation.

In addition to mental filter similarity and the need for awareness of its importance, preparers and users of accounting reports need to consider difficulties caused by "noise" in the communication environment and limitations inherent in the transmitting and receiving abilities of the individuals involved. With such awareness present, feedback can offer opportunities for evaluating communication effectiveness and for correcting miscommunication as it occurs.

Both preparers and users of accounting reports need mental filter similarity and communication knowledge and skills. College-level educational programs present opportunities to provide students with experiences in each of these areas upon which they can base communication efforts in the future.
Teaching students to be aware of the elements of communication and providing them with actual practice in communicating are among the possible activities in these areas. Accounting literature emphasizes the need for educational programs to teach communication as well as accounting. The interviews reveal a number of methods actually in use to teach students to be communicators. Among these are English courses, business communication courses, written assignments and examinations, oral reports and question-and-answer periods, and faculty emphasis upon the importance of communication ability. Faculty awareness of the elements of communication and their importance is likely to be a significant factor in how well students are taught communication knowledge and skills.

Providing mental filter similarity through accounting educational programs calls for at least a minimum amount of similarity in course and curriculum content at various institutions offering such programs. While studies have been conducted into what should be the orientation and content of introductory accounting courses and curricula intended for accounting majors, there is little evidence of agreement among educators as to whether these studies are appropriate guides to course and program planning.
This work does not attempt to specify what the orientation and content of accounting programs should be. It is suggested, however, that developing standards for planning and evaluating collegiate education in accounting at all levels could provide benefits through greater mental filter similarity in the future.

The communication concepts under consideration can also be applied to the instructional process itself. While the mental filters of faculty members and students are likely to be quite different, steps can be taken to provide instructors with information on their students' backgrounds. The interviews revealed a large number and wide variety of ways in which such information is gathered. The students themselves, existing files, test results, information on prerequisite courses, and faculty interaction are among the sources mentioned by various persons interviewed.

Faculty awareness of communication difficulties resulting from mental filter dissimilarity, limited transmitting and receiving capabilities, and environmental factors, provides a basis for action to overcome many such difficulties.

Careful consideration can be given to whatever is known about student mental filters, stimuli can be directed to more than one receiving device, feedback can be obtained, and points may be repeated or
re-emphasized in various ways. Of course these are only a few general observations and many other methods might be employed to offset limitations present in given communication situations.

Feedback may be useful in judging communication success in classroom situations and in evaluating overall program effectiveness. Quizzes, examinations, homework assignments, classroom interaction, and course evaluations by students are a few of the methods available for obtaining information about individual students and classes.

Information on students' future needs and the effectiveness of present programs may be obtained from such sources as former students, their employers, schools which they subsequently attend, and interaction with other educators and other individuals with an interest in accounting education.

Surveys, informal contacts, meetings of professional organizations, and meetings planned for this purpose, are among the methods reported in use by various institutions contacted in the interview process.

This work demonstrates that communication theory concepts can be applied to accounting education on both theoretical and practical levels. It is not suggested that accounting courses and curricula can provide sufficient mental filter similarity and knowledge of
communication techniques to eliminate problems as complex as those involved in communicating accounting information. It is suggested, however, that educational institutions are appropriate places for building the foundations needed for future communication activities.

Overall, it is hoped that demonstrating the applicability of communication theory concepts to accounting education will encourage future consideration of such concepts as educational programs are developed. The general recommendations presented here reveal the need for additional research to provide clearer specification of what the goals of accounting education should be and to develop more specific applications to educational programs. Methods of teaching communication skills, providing mental filter similarity, and applying communication concepts to instruction are all areas in which additional research should prove to be useful.

Increased communication among educators regarding student needs and instructional methods should also be beneficial to accounting education. Additional research is recommended to determine ways in which such communication currently takes place and how it might be facilitated in the future.
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Other


APPENDIX A

Interview Introduction*

My name is John Salter. As part of a research project at Louisiana State University, Baton Rouge, I am conducting interviews at the colleges and universities of south Florida to gather information about accounting educational programs.

The objective of the project is to apply communication theory concepts to accounting education with emphasis in three general areas:

1) making students better communicators,

2) using communication concepts in the classroom,

and 3) communication among educators at various colleges and universities which teach accounting.

Much of the theoretical work has been completed and the current objective is to determine what is presently being done at a selected group of schools.

*This is the general content of the introduction given to each person interviewed.
Here is a set of questions that we can use to guide our discussion. You need not mark any answers as I will mark my copy and make notes to remind me of comments you make. However, no attempt will be made to identify individuals interviewed or their schools in the report.

Many of the questions have possible answers listed with them. These are not intended to be all-inclusive lists or to imply that these are "correct" answers to the questions. If you will comment on the points listed and add other ideas to the list, this will be most helpful. While the first objective is to obtain information on what is being done here at your school, other ideas or suggestions you can contribute will also be appreciated.
APPENDIX B

Interview Questions

1. What methods are used in accounting courses to improve students' communication abilities?
   _____a. Term papers
   _____b. Oral examinations
   _____c. Written examinations
   _____d. Question and answer periods
   _____e. Seminars
   _____f. Case studies
   _____g. Other______________________________
   _____h. Other______________________________

2. What other means do you know for improving students' communication abilities through accounting courses?
   a. ________________________________
   b. ________________________________

3. How many courses in business communication are offered at your school?
   _____a. None
   _____b. One
   _____c. Two
   _____d. More than two

4. What texts are used in these courses?
   a. ________________________________
   b. ________________________________
5. What methods are used to obtain information on how well students have understood and retained material presented or assigned in individual accounting classes?

___a. Written reports or term papers
___b. Oral reports
___c. Evaluation of homework
___d. Quizzes and/or examinations
___e. Informal questions asked by instructor
___f. Informal questions asked by students
___g. Office visits by students
___h. Mechanical or electronic devices
___i. Other__________________________
___j. Other__________________________

6. What methods are used to obtain information on accounting students' opinions regarding such things as instructional methods, the amount of work required, and communication problems in the classroom?

___a. Course evaluations
___b. Scheduled "rap" sessions with the instructor
___c. Scheduled "rap" sessions with the department head or someone else other than the instructor
___d. Suggestion box
___e. Office visits with the instructor
___f. Office visits with dept. head, etc.
___g. Other__________________________
___h. Other__________________________

7. What methods are used to obtain information from graduates (or other former students) regarding the effectiveness of accounting courses and curricula?

___a. Surveys
___b. Informal contacts
___c. Obtaining results from exams such as CPA, CMA
___d. Other__________________________
___e. Other__________________________

8. What methods are used to obtain information from employers of former students regarding the effectiveness of accounting courses and curricula?

___a. Surveys
___b. Informal contacts
___c. Other__________________________
___d. Other__________________________
9. What methods are used to obtain information from other educational institutions attended by former students regarding the effectiveness of accounting courses and curricula?

   ___ a. Surveys
   ___ b. Informal contacts
   ___ c. Periodic meetings
   ___ d. Grade reports
   ___ e. Other ___________________________
   ___ f. Other ___________________________

10. What methods are used to provide instructors with information on the background and experiences of individual students, other than educational data?

   ___ a. Surveys of students
   ___ b. Departmental or college files
   ___ c. Other instructors at this school - informal
   ___ d. Other instructors at this school - planned or periodic meetings
   ___ e. Instructors at previously attended schools - informal contacts
   ___ f. Instructors at previously attended schools - planned or periodic meetings
   ___ g. Other ___________________________
   ___ h. Other ___________________________

11. What methods are used to provide instructors with information on the educational background and experiences of individual students?

   ___ a. Surveys of students
   ___ b. Departmental or college files
   ___ c. Other instructors at this school - informal contacts
   ___ d. Other instructors at this school - planned or periodic meetings
   ___ e. Other instructors at this school - grade reports
   ___ f. Instructors at previously attended schools - informal contacts
   ___ g. Instructors at previously attended schools - planned or periodic meetings
   ___ h. Instructors at previously attended schools - grade reports
   ___ i. Other ___________________________
   ___ j. Other ___________________________
12. Is any effort made to group students in sections by background or educational experience?

yes  no

13. What methods are used to provide instructors with information on the content of courses, especially accounting courses, completed by students while at this school?

   _____a. Faculty meetings at which courses are discussed
   _____b. Knowledge of texts used
   _____c. Rotation of teaching assignments
   _____d. Informal faculty interaction
   _____e. Other_______________________________
   _____f. Other_______________________________

14. What methods are used to provide instructors with information on the content of courses, especially accounting courses, completed by students while at other colleges?

   _____a. Knowledge of texts used
   _____b. Informal faculty interaction
   _____c. Planned or periodic meetings
   _____d. Other_______________________________
   _____e. Other_______________________________

15. What methods are used to determine the needs of present students in accounting courses who will later attend another college or a graduate school?

   _____a. Direct communication with other schools
   _____b. Informal faculty interaction
   _____c. Reference to published catalogues
   _____d. Other_______________________________
   _____e. Other_______________________________
16. What sources have had a significant influence on the orientation and content of elementary accounting courses at your school?

   ___ a. A New Introduction to Accounting (the report of the Study Group on Introductory Accounting sponsored by the Price Waterhouse Foundation published in July, 1971)
   ___ b. Articles or "Academic Notes" in The Accounting Review
   ___ c. Other colleges and universities
   ___ d. Textbook content
       (What text will be used this fall?)
   ___ e. Accounting Trends (edited by Thomas Burns and published annually by McGraw-Hill)
   ___ f. Other
   ___ g. Other

17. What sources have had a significant influence on the orientation and content of your total accounting program?

   ___ a. Horizons for a Profession and the subsequent Beamer report on education and experience requirements for CPAs
   ___ b. Accounting Trends (edited by Thomas Burns and published annually by McGraw-Hill)
   ___ c. Information obtained from other colleges
   ___ d. Textbook content
       (What texts will be used this fall in:
        Intermediate accounting? _____________
        Advanced accounting? ______________
        Cost accounting? _________________
        Auditing? _________________________
        Income tax?)
   ___ e. Articles and "Academic Notes" in The Accounting Review
   ___ f. Past CPA exams
   ___ g. Past CMA exams
   ___ h. Other
   ___ i. Other
18. Is a course in business communication required of accounting majors?  
   yes no

19. What methods are used to obtain information on how well accounting majors have understood and retained material covered in their accounting program, taken as a whole?
   ___ a. Comprehensive written exams
   ___ b. Comprehensive oral exams
   ___ c. Other__________________________
   ___ d. Other__________________________

20. What factors are considered in determining whether transfer credit will be allowed from another college?
   ___ a. Grades (if so, what is minimum accepted?____)
   ___ b. Knowledge of the other college's program
   ___ c. Accreditation of the other college
   ___ d. Admission or credit examinations
   ___ e. Other__________________________
   ___ f. Other__________________________

21. How are transfer credit policies communicated to prospective students and to the schools which they might attend?
   ___ a. Publication in the catalog
   ___ b. Information releases for publication
   ___ c. Direct contact with prospective students
   ___ d. Direct contact with other colleges
   ___ e. Other__________________________
   ___ f. Other__________________________

Note: The following additional question, although not printed on the interview form, was asked of each person interviewed.

22. What methods are used to present material and/or reinforce student comprehension other than lectures, discussions, question and answers, and problem solving in the classroom?
## APPENDIX C

### DEGREE-GRANTING INSTITUTIONS INTERVIEWED

<table>
<thead>
<tr>
<th>Institution</th>
<th>Bachelor's Degrees in Accounting, 1970-71</th>
</tr>
</thead>
<tbody>
<tr>
<td>Florida Atlantic University</td>
<td>74</td>
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<tr>
<td>Florida Southern College</td>
<td>14</td>
</tr>
<tr>
<td>Florida Technological University</td>
<td>24</td>
</tr>
<tr>
<td>Fort Lauderdale University*</td>
<td>63</td>
</tr>
<tr>
<td>University of Miami</td>
<td>117</td>
</tr>
<tr>
<td>University of South Florida</td>
<td>97</td>
</tr>
<tr>
<td>University of Tampa</td>
<td>16</td>
</tr>
<tr>
<td>Florida International University</td>
<td>**</td>
</tr>
</tbody>
</table>

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*Fort Lauderdale University is now the Fort Lauderdale College of Business and Finance.

**Classes commenced Fall, 1972, at Florida International University.

## Appendix D

Community Colleges Interviewed

<table>
<thead>
<tr>
<th>College</th>
<th>Enrollment Fall--1972</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brevard Community College</td>
<td>3,456</td>
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<tr>
<td>Broward Community College</td>
<td>5,879</td>
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<tr>
<td>Edison Community College</td>
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<tr>
<td>Hillsborough Community College</td>
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<tr>
<td>Indian River Community College</td>
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<tr>
<td>Manatee Community College</td>
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</tr>
<tr>
<td>Miami-Dade Community College</td>
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</tr>
<tr>
<td>Palm Beach Junior College</td>
<td>4,405</td>
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<tr>
<td>Polk Junior College</td>
<td>1,814</td>
</tr>
<tr>
<td>St. Petersburg Junior College</td>
<td>5,826</td>
</tr>
<tr>
<td>Valencia Community College</td>
<td>2,782</td>
</tr>
</tbody>
</table>

John Harvey Salter III, the son of Mr. and Mrs. John H. Salter, Jr., was born in Brunswick, Georgia, on November 21, 1941. He received his elementary and secondary education in Savannah and Hinesville, Georgia, graduating from Bradwell Institute in May, 1959.

In September, 1959, he entered Auburn University and received the Bachelor of Science degree with a major in Accounting in June, 1963. On June 8, 1963, he was married to Marilyn Pinson, of Gadsden, Alabama. He entered the army as a Second Lieutenant the same year and served as an instructor in the Army Artillery and Missile School at Fort Sill, Oklahoma. During this time a daughter, Paula Sue, was born. He then worked for Republic Steel Corporation in Gadsden, Alabama, as a Management Trainee and budget and cost analyst. A second daughter, Carolyn Kay, was born in June, 1966.

In the summer of 1969 he entered Graduate School at Louisiana State University, Baton Rouge, and was graduated with a Master of Science degree with a major in Accounting in August, 1970. He taught at Jacksonville
State University in Alabama from September, 1970, through June, 1972, at which time he entered the Ph.D. program at Louisiana State University with a major in Accounting and a minor in Management. He received a graduate assistantship for one year, and a National Defense Education Act fellowship for the year 1972-73. He served as an instructor in the Accounting Department of Louisiana State University in 1974-75. He is currently a candidate for the degree of Doctor of Philosophy in the Department of Accounting.
EXAMINATION AND THESIS REPORT

Candidate: John Harvey Salter III

Major Field: Accounting

Title of Thesis: An Application of Selected Communication Theory Concepts to Accounting Education

Approved:

[Signatures]

Major Professor and Chairman

Dean of the Graduate School

EXAMINING COMMITTEE:

[Signatures]

Date of Examination:

August 1, 1975